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CONTROL OF DRINKING AND CULINARY WATER ON VESSELS IN INTERSTATE TRAFFIC.

THE SUPERVISION AND CONTROL OF WATER PROVIDED FOR DRINKING AND CULINARY PURPOSES ON VESSELS OPERATING IN INTERSTATE TRAFFIC ON THE GREAT LAKES AND OHIO RIVER DURING THE NAVIGATION SEASON OF 1921, AS EXERCISED BY THE UNITED STATES PUBLIC HEALTH SERVICE IN COOPERATION WITH STATE AND LOCAL HEALTH AUTHORITIES.

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Through the cooperation of State and city departments of health with the United States Public Health Service, an effective supervision and control was maintained over the water provided for drinking and culinary purposes on Great Lakes passenger vessels during the navigation season of 1921; and a careful study was made of the conditions under which such water was being supplied on Ohio River vessels operating out of Cincinnati.

GREAT LAKES VESSELS.

With the approval of the State departments of health concerned, the city health departments at Buffalo, Chicago, Cleveland, Detroit, and Milwaukee were invited to enter into a cooperative arrangement with the Public Health Service, for exercising a uniform control over the drinking water on Great Lakes passenger vessels calling at their respective ports. By the arrangement agreed upon, the local health department at each of these cities detailed a sanitary inspector to collect weekly or semiweekly samples of water from the drinking-water system on each of the passenger vessels calling at its port. Bacteriological analyses of these samples were made at the city laboratories. The routine analytical procedure recommended for this work was the planting of 1 c. c. amounts of the samples on agar and recording the colonies developed after incubation at 37° C. for 24 hours; and the planting of five 10 c. c. portions of the samples in fermentation tubes containing lactose-peptone broth and observing the gas formation in the closed end of the tube after 48 hours incubation at a temperature of 37° C. Other dilutions were frequently made. If gas was noted in any of the fermentation tubes the presence of the *B. coli* group was further investigated according to the practice at the respective laboratories.

Standard survey blanks and cards for reporting the results of the bacteriological analyses were furnished, if desired, by the Public Health Service. These reports were mailed weekly to the headquarters of the Interstate Sanitary District No. 3, in Chicago. In case the results of analyses indicated serious contamination of the drinking water on a vessel, this fact was made known immediately to the district office and a special investigation was made of the water supply system of this ship.

Each month a report of the results of these bacteriological analyses, with pertinent remarks concerning same, was mailed to the headquarters of the shipping companies from whose vessels the samples were collected, with a request that copies of the report be supplied to the master and chief engineer of the vessels concerned. This action was in accordance with the policy of the Public Health Service to stimulate the interest of the shipping officials and seamen in the safety of water provided on their vessels and to educate them in this matter. The interest shown and the attention given by these men to all details concerning the supplying of a safe drinking water on their vessels were very encouraging.

All inspections of the water-supply systems on vessels operating in interstate traffic and the subsequent issuing of certificates of approval or nonapproval were carried out by the Public Health Service. Samples were not collected regularly from all car ferries or freight vessels, although nearly 200 samples were collected and analyzed from vessels of these classes. A sanitary inspector located at Sault Ste. Marie during a part of August and September inspected the water-supply systems on all freight vessels passing through the Government locks during the daytime and made qualitative tests of the distilled water provided for drinking purposes, to check the operation of the distillers.

During the course of the 1921 navigation season 1,802 samples were collected and bacteriological analyses of same were made from the drinking water distributing system or storage tanks on Great Lakes vessels. Nearly 300 "raw" water samples were also collected and analyzed. The collection of samples by months and the number of analyses made by the different cooperating agencies are given in the following tables:

Samples of water collected and analyzed.

April.....	29	Sept.....	197
May.....	176	Oct.....	132
June.....	380	Nov.....	56
July.....	442		
Aug.....	300	Total.....	1,802

City.	Department.	Samples.
Buffalo, N. Y.	City Health department.....	411
Chicago, Ill.	do.....	318
Do	United States Public Health Service.....	290
Cleveland, Ohio.	City health department.....	281
Detroit, Mich.	do.....	410
Milwaukee, Wis.	do.....	102
Total.....		1,802

Federal regulations as promulgated in Treasury Department Circular No. 234, dated March 3, 1921, provide that on and after April 15, 1921, all water provided for drinking or culinary purposes on vessels operating "in interstate traffic or between ports on or near the frontiers of the United States and ports in the United States" must either be obtained from sources ashore or be treated aboard the vessel by an approved method. Similar regulations, affecting Great Lakes vessels only, were promulgated in Treasury Department Circular No. 72 dated February 12, 1917; and, as a result of same, most of the large passenger vessels on these lakes were equipped with water-treatment apparatus.

Public Health Service inspectors and sanitary engineers made the inspections of the drinking-water system on each vessel, investigating the method of delivery of water to the vessel, its storage aboard, and the condition of the water-treatment apparatus.

The Federal regulations required that no other water than that approved for drinking and culinary purposes be permitted in the galley quarters on vessels, and that at all places on the ship at which other than drinking water was conveniently available for use, signs be placed, warning against the use of this water for drinking. Bypasses around water-treatment apparatus or cross connections between the drinking-water system on a vessel and any other water system aboard were not permitted. A "physical" disconnection (by the removal of a short section of the piping and plugging the ends of the "break") was required in these cases. Pipe of lead or lead compounds in the drinking-water distributing system was prohibited; and it was required that all water coolers be so constructed that the water could not come in contact with the ice. The practice of having seamen go into water-storage tanks for the purpose of weekly cleaning was discouraged. Instead of this practice it was recommended that these tanks be sterilized by means of "live" steam or by a solution of hypochlorite of lime, and subsequently flushed. Sterilization with hypochlorite of lime solution proved to be the more satisfactory method. On several vessels high bacteria counts were prevented by periodic sterilization of the distributing system by pumping a solution of this chemical through same.

The passenger vessels on which water used for drinking and culinary purposes was obtained from certified sources ashore were usually excursion vessels operating between ports less than two or three hours running time apart. This water was delivered by means of a hose direct from the hydrants at the dock to delivery pipes leading to the storage tanks on the vessel.

Four methods were employed on Great Lakes passenger vessels last season for disinfecting water taken on en route direct from the Lakes:

1. Filtration and ultra-violet ray disinfection;
2. Heat treatment by steam;
3. Filtration and ozone treatment; and
4. Distillation.

In the following table information is given showing the number of samples collected from Great Lakes passenger vessels last summer, arranged according to the method by which this water was obtained; and the percentage conforming to the Treasury Department bacteriological standards for water provided for drinking and culinary purposes by interstate carriers.

Source.	Treatment aboard.	Number of samples.	Per cent conforming to Treasury Department standards.	
			Bacteria per c. c. 37°-24 hours.	B. coli, positive, 10 c. c.
City water; Great Lakes; chlorine disinfection	None.....	240	40.0	78.0
Great Lakes.....	do.....	42	40.5	16.7
Do.....	U. V. R.....	1,054	63.6	84.3
Great Lakes, St. Clair and Detroit Rivers	Steam treatment.....	134	15.7	73.4
Great Lakes.....	Distillation.....	123	65.6	92.3
Do.....	Ozone.....	16	37.5	43.8
Total.....		1,614	155.5	181.3

¹ Average.

Twenty-eight large passenger vessels of American registry and two Canadian ships, from which samples were collected, were equipped with ultra-violet ray sterilizers. With each installation a pressure sand filter (or filters) was provided for the removal of particles in suspension in the raw lake water prior to its passage through the sterilizer. The turbidity of the waters of the Great Lakes a few miles offshore is usually very low, but for days and sometimes weeks at a time there is sufficient matter in suspension in the water, if not removed by filtration, to seriously reduce the sterilizing ability of the ultra-violet rays emitted from the mercury vapor arc produced in the stem of the quartz lamp. A valve in the discharge line from the sterilizer is provided in all installations, which will permit water to pass to the drinking-water storage tanks only when the voltage across the lamp is that for which the capacity of the sterilizer is rated. On three of the larger vessels, two sterilizing units were connected in series. With the exception of a few instances, when the electrical equipment of the sterilizer was out of order, these sterilizers gave very good service. The engineers on each of the vessels inspected were in-

structed in the operation of this apparatus. The manufacturers of the sterilizers gave excellent service in this connection.

On five passenger vessels, all of one fleet, apparatus were installed for disinfecting the water taken on en route by heat treatment, using steam direct from the ship's boilers to raise the temperature of the water. With this apparatus the water is taken on through a sea cock by means of a steam ejector and is delivered to a retention tank, where the temperature of the water is raised to about 212° F. Supplementary steam, in excess of that from the ejector, is delivered to the tank if needed, its supply being controlled by a thermostat at the influent end of the retention tank. This tank was designed to hold the water delivered by the ejector at 212° F for five minutes; but this retention period varies, of course, as the steam supply to the ejector affects the delivery of water to the tank. A second thermostat at the effluent end of the tank controls the delivery of the heat-treated water. Until the temperature of the water in the retention tank reaches 212° F. the effluent from same is not discharged into the drinking-water storage tanks. The heat-treated water is cooled by passing through coils in a tank through which lake or river water is circulated. The vessels on which these heat-treatment apparatus were installed operated in the Detroit and St. Clair Rivers, the western end of Lake Erie, and Lake St. Clair. Frequently "aftergrowths" in the treated water developed. Laboratory reports of "innumerable" bacteria developing on agar plates incubated at 37° C. were not infrequent. As a rule, determinations for the *B. coli* group were negative, with the exception of the samples from one boat. Field tests of the operation of the thermostatically controlled valves showed that on all five of these vessels this equipment was out of adjustment. The design of these thermostats used was such that accurate temperature control could be maintained through their regulation of the valve control mechanism, provided these thermostats were properly adjusted. It is understood that the treatment of water used for drinking purposes on these five vessels will be discontinued during the 1922 season, and that such water will be obtained from sources ashore.

On two passenger vessels operating out of Chicago on Lake Michigan, ozone treatment apparatus were installed early in the season; but owing to the unsatisfactory results obtained, it was necessary to disapprove these installations. The installation on each of these vessels consisted of the following units: (1) A pressure sand filter; (2) a time relay operating a valve in the filtered water line, and set so as to permit the delivery of filtered water to the sterilizer only when the ozonator was operating; and when the apparatus was first started, not until one minute after the ozonator had been in operation; (3) a transformer unit, stepping D. C. current from 110 to

12,000 volts; (4) an ozonator with a dielectric system of the grid type, consisting of glass plates 9 by 4 inches, on which the sheet electrodes were mounted; (5) an aspirator for drawing the "ozonized air" into the water-ozone mixers, of which there were 12 units attached to one manifold and discharging directly into a storage tank.

No arrangement was made for preliminary drying of the air drawn into the ozonator. On one of the vessels this apparatus was located in the engine room, and the condensation of moisture between the plates often caused short circuiting in the system. Later, a blower was connected to the ozonator to correct this defect. Tests of the efficiency of this apparatus gave very unsatisfactory results; and it was necessary to issue an unfavorable certificate for both of these vessels, which resulted in the discontinuance of the use of these apparatus and the obtaining of water from certified sources ashore.

On four passenger vessels and about 80 per cent of the freighters operating on the Great Lakes during the season of 1921, distillers were operated for supplying drinking water. On all of the passenger vessels the results were very satisfactory, although some of the engineers claimed that the steam needed for the operation of the distiller was a load on the boilers. Multi-stills were used in each case.

On the freight vessels the distillers gave excellent service where they were properly operated and the apparatus was in good physical condition. The forcing of water through the evaporating chamber was the chief difficulty experienced on this class of vessels, this trouble being confined mostly to one type of distiller. Leaks between the evaporating and condensing chambers were found on some of the distillers, the metal walls having worn through. In the former case the throttling of the water supply to the distiller corrected the difficulty, and in the latter it was necessary to replace the worn parts of the apparatus.

To test the operation of the distillers, qualitative tests, using a solution of silver nitrate, were made of the water in the drinking water storage tanks. If the characteristic cloudy precipitate of silver chloride appeared, it was assumed that the water had not been distilled; or if the chief engineer reported these tanks had been filled only with water from the distiller, an inspection of this equipment was made, which usually located the difficulty. These tests were made as the vessels were visited at various ports or as they were inspected while passing through the Government locks at Sault Ste. Marie. At Cleveland many samples were collected from freight vessels on which it was found that the drinking water tanks had been filled direct from the lakes, and bacteriological analyses frequently showed that this water was contaminated. The following table summarizes the results of bacteriological analyses made of samples of water collected from the drinking water system on Great Lakes freighters:

Source.	Treatment aboard.	Number of samples.	B. coli determinations.	
			Positive, 10 c. c.	Per cent negative, 10 c. c.
City water; Great Lakes: chlorin disinfection.	None.....	29	6	79.3
Great Lakes direct.....	Distilled ¹	25	3	88.0
Do.....	do.....	50	0	100.0
Do.....	None.....	84	8	90.5
Total.....	.....	188	17	.....

¹ Silver nitrate test positive.

OHIO RIVER VESSELS.

Through the cooperation of the Cincinnati Department of Health, samples of water were collected regularly from Ohio River packet passenger and freight vessels calling at that port, and bacteriological analyses of same were made. Investigations of the methods under which drinking water was obtained, delivered to, and stored aboard these vessels revealed some very insanitary conditions.

On most of these river vessels the drinking water was obtained from sources ashore, such as the public water supply at ports of call. It was delivered to the vessel from hydrants in pails, buckets, barrels, and other containers and stored aboard in tanks, open barrels, and coolers. Through careless handling and insanitary storage conditions, this water was frequently contaminated before being served to the public. In the kitchen quarters the hot water used was invariably the river water drawn from the boilers. In some instances, "raw" river water was used in these quarters, being taken aboard in a pail and stored in wooden barrels for use. Ice and water were found in contact in nearly all water coolers on these vessels.

Temporary measures were taken to provide a safe drinking water on this class of boats by requiring more care in the handling and storage of this water, and the results of bacteriological analysis thereafter showed a marked improvement. The bacteria counts were reduced, but continued to be excessively high, while the *B. coli* determinations continued to indicate a reasonably satisfactory control. From July to the end of the calendar year 1921, 263 samples of the water being used for drinking and culinary purposes were collected and analyzed by the Cincinnati Department of Health. The analyses showed only a 5.7 per cent conformity to the Treasury Department standard for bacteria in 1 cubic centimeter of the samples developing on agar plates after incubation at 37° C. for 24 hours, while there was a 62 per cent conformity to the *B. coli* standard. The contaminated water of the earlier samples tended to lower this latter percentage.

A careful study was made of the problem of supplying a safe drinking water to river vessels. It is believed that for the passenger vessels calling regularly at the larger cities, watering stations should be arranged for, at which the vessels could obtain drinking and culinary water from the city mains direct. Such an arrangement would necessitate the extension of a pipe line down the incline to the wharf boats, suitable hose connections to the wharf boat and the vessels, and adequate storage tanks and distributing pipes aboard.¹ It would enable the tanks to be filled without handling the water, the delivery being made by means of the hose and pipe connections and the pressure in the city mains. For craft not calling regularly at ports where safe water can be conveniently obtained, treatment of river water aboard the vessel would be necessary. Distillation would probably be the most satisfactory method of treating this water to render it suitable for human consumption.

THE PUBLIC HEALTH INSTITUTES.

During the winter and spring of 1922 there were held in various cities of the country, under the auspices of State boards of health and the United States Public Health Service, sixteen public health institutes. These schools of instruction, lasting, in most cases, one week, were modeled to a considerable extent upon the Institute on Venereal Disease Control and Social Hygiene held in Washington in November, 1920. They covered, however, a much broader field. Scientific progress in all phases of public health has become so rapid that few of those who are engaged in practical work can keep pace with the many new developments. They need help from time to time in securing essential new facts and inspiration and stimulation for further individual study. The success of the institutes in bringing health officers, private practitioners, educators, heads of institutions, and others concerned into closer touch with some of the newer aspects of public health is no less, because in addition they centered general attention on the problem of public health and helped to create in the communities in which they were held, particularly among the women, active groups interested in a broad and constructive program.

The following table gives the places in which institutes were held, the dates, and the registration at each. In most cases the State board of health was in charge, but generous cooperation was rendered by a number of voluntary organizations. The University of

¹ For a fuller discussion of this matter see "Sanitary Methods for Supplying Vessels with Water for Drinking and Culinary Purposes, when Obtained from Sources Ashore," Public Health Reports, vol. 37, No. 11, Mar. 17, 1922, pp. 613-630. Reprint No. 734.

Pittsburgh, which, through Dr. Samuel R. Haythorn, assumed responsibility for the Pittsburgh institute, the School of Public Health of the University of Louisville, the University of Minnesota Medical School, and a number of local medical organizations merit special mention.

Place.	Date.	Registration.	Place.	Date.	Registration.
New Orleans, La.	Jan. 9-13	105	Minneapolis, Minn.	Mar. 20-25	142
Columbia, S. C.	Jan. 9-14	418	Portland, Oreg.	Apr. 10-15	180
Dallas, Tex.	Jan. 16-21	285	Kansas City, Kans.	Apr. 10-15	478
Birmingham, Ala.	Jan. 16-20	252	Spokane, Wash.	Apr. 17-22	140
Memphis, Tenn.	Jan. 23-28	299	Newark, N. J.	Apr. 10-15	589
Louisville, Ky.	Jan. 30-Feb. 4	365	Albany, N. Y.	Apr. 18-21	137
Indianapolis, Ind.	Feb. 13-18	822	Hartford, Conn.	May 1-6	777
Pittsburgh, Pa.	Feb. 20-25	264			
Chicago, Ill.	Mar. 13-18	1,001	Total		6,254

The total registration at the 16 institutes was 6,254, an average of nearly 400 for each institute. This figure does not include, however, all those attending, inasmuch as a considerable number failed to register. Attendance varied at the different institutes, ranging all the way from 100 to 1,000. The institute at Chicago was the largest. At Indianapolis the excellent organization of the State health activities enabled large numbers of local health officers and nurses to attend. At Hartford the New England institute, drawing from a considerable population, and being well advertised, had a large attendance. In Kentucky and Kansas the institute was combined with the annual school for health officers, and in this way a large attendance of those most interested was secured.

An attempt has been made in the following list to classify persons attending. The necessary information was not available in three of the institutes, so that the number "unclassified" is large. Particularly large attendance on the part of nurses is to be noted. Many of the physicians registered were undoubtedly local health officers.

REGISTRATION BY OCCUPATION.

Physicians	1,718	Judges and court officials	46
Nurses and social workers	1,907	Unclassified	2,169
Students	238		
Teachers and clergymen	107	Total	6,254
Sanitary engineers	69		

There was no exact uniformity in the courses given at the various institutes. However, in most cases many of the newer aspects of public health were covered. At Portland, Oreg., for example, the schedule included the following courses: Tuberculosis, child hygiene, nutrition in health and disease, management of clinics, health centers, general communicable diseases, noncommunicable diseases, industrial

hygiene, sanitary engineering, administrative problems, mental hygiene, medical social work, syphilis, gonorrhoea, protective social work, and the delinquent. Of these, the courses in syphilis, gonorrhoea, tuberculosis, child hygiene, and mental hygiene were most popular. When asked to name the least successful course, most of the institute directors stated that they could not do so. The courses in rural sanitation, sanitary engineering, and industrial hygiene reached the smallest number of individuals. This does not mean that these courses were unpopular, but rather that, because of their very nature, they appeal to more limited groups.

The Chicago institute was devoted entirely to social hygiene and the venereal diseases, and was especially successful. These subjects attracted large attendance throughout the institutes. That there is in all parts of the country particular interest in various phases of social hygiene had already been demonstrated by the success of the institute in Washington, D. C., November, 1920. The experience in the local institutes further confirmed this fact.

High-grade faculties were provided for all the institutes. The best local talent was supplemented, through the assistance of the Public Health Service, by a group including some of the most prominent workers in their respective fields in the country. Most members of this group participated in several of the meetings. In a number of cases they undertook the work at considerable personal sacrifice, and to their generous assistance a large part of the success of the institutes is due.

Special evening meetings on the general subject of public health were held in connection with most of the institutes. These were attended by a total of 5,731 persons. The subjects were such as to attract attendance on the part of the general public. Many of those who came to the institutes especially for instruction were only incidentally interested in these special meetings, and it was the opinion of several institute directors that at future institutes it would be best to omit them. However, in stimulating general community interest in public health, they have a value which should not be overlooked.

Clinics were provided in connection with a number of courses at most of the institutes. At the New York institute, which was held in Albany simultaneously with the meeting of the State medical society, no formal lectures were given; only a series of clinics on the venereal diseases. This institute was a marked success. Practical clinics are of great educational value to the partially trained medical man. They are particularly desirable in connection with courses in syphilis and gonorrhoea, in the treatment of which no standardized practice has yet been established, and to which little attention has been paid in medical schools. However, clinics are for professional

men and women and can not be used to stimulate the interest of laymen in public health work.

Much of the success of the meetings depended on publicity. Those with the largest attendance were extensively advertised. The New England institute, for example, was announced on every envelope mailed from the office of the Connecticut State Board of Health for some months previous to the sessions. Systematic efforts to get the essential information to physicians and others interested are necessary in order to insure an attendance in keeping with the efforts expended. On the whole, newspapers were very generous with space. In several cases they reported at length the talks presented, which thus reached a much larger number than that in attendance. At one institute the period of the sessions was recognized as a health week throughout the community. Men's luncheon clubs, churches, improvement societies, and schools were provided with speakers. The National Health Exposition was held in Louisville at the same time as the Kentucky institute.

Probably one of the most successful features in connection with the institutes was the series of women's conferences.¹ These were held at Washington, D. C., St. Louis, Mo., Columbia, S. C., Birmingham, Ala., Memphis, Tenn., Louisville, Ky., Indianapolis, Ind., Pittsburgh, Pa., Kansas City, Kans., Newark, N. J. With the increased participation of women in public affairs, a considerable proportion of their potential energies will naturally be devoted to activity in the field of public health. However, in common with the general public, they need a better understanding of the various problems if they are to participate intelligently in their solution. The conferences, which were, in every instance, well attended and which succeeded in giving a more comprehensive idea of the field than one or two special lectures, contributed largely to this end. It is significant that in practically every case a group was formed at the conclusion of the conferences for more extended study.

Very generous expressions of approval have been made by those in attendance at the various institutes. In most cases there was a practically unanimous feeling that the institute should become a yearly event. In several cases definite recommendations to this effect were made voluntarily by groups officially representing those in attendance. Even in the smaller meetings it was felt that a sufficient measure of success had been achieved to justify the energies expended, and that with the publicity given this first effort, subsequent institutes would inevitably attract large numbers and even more fully justify this new undertaking.

¹ See Public Health Reports, June 2, 1922, pp. 1307-1313.

So rapid has been the progress in the field of public health in the United States that we are to-day realizing only a few of the benefits which science has already assured. The utilization of the new knowledge can be accelerated best by carrying it to the workers and to those who are doing practical field work. The institutes reached a considerable number in this group. Pending the development of more effective measures, they would seem to meet, in a measure, the need for more education on the part of the partially trained sanitarian. They would seem also to provide a method of stimulating general public interest and of giving community leaders a comprehensive view of the health problems which they are called upon to solve. The success of this first series of institutes has indicated possibilities which, it is hoped, will be even more fully realized in the future.

VACCINATION REGULATIONS OF WASHINGTON STATE BOARD OF HEALTH HELD VALID.

The following is the opinion of the Supreme Court of Washington in a case ¹ in which the vaccination regulations of the State board of health were held to be valid:

Tolman, J.: On July 27, 1921, the State board of health, proceeding regularly, adopted and promulgated the following rule and regulation:

"If smallpox exists in a community, the county or city boards of health shall provide free vaccination for persons who have no funds to procure vaccination from other sources. When smallpox exists in a community, no child, teacher, or janitor shall be permitted to attend school, or teach or labor therein, without presenting satisfactory evidence of having been successfully vaccinated within seven years from the date of the commencement of the school term: *Provided*, That should any city or county health officer, having jurisdiction over any school district in which there is a case of smallpox, be of the opinion that any pupil, teacher, or janitor, as mentioned herein, should not be vaccinated because of some physical defect or some active or latent disease, then such health officer shall refer the matter to a board of three competent, licensed, and practicing physicians, actually living within the jurisdiction of such health officer, such board to be appointed by the board of health having jurisdiction over such health officer; should a majority of such board of physicians, after a careful personal examination, be of the opinion that any such pupil, teacher, or janitor is not in condition to submit to vaccination, and that such vaccination would prove harmful to such pupil, teacher, or janitor, then such health officer shall issue a certificate to that effect, and such pupil, teacher, or janitor shall not thereafter be required to submit to such vaccination during the time specified by such board of physicians: *Provided*, That should action be referred to a board of physicians as provided herein, then such pupil, teacher, or janitor shall be prohibited from attending, teaching, or laboring in or around such school until the matter is finally determined by such board of physicians."

This regulation, ever since its adoption, has been and now is in full force and effect.

For some time prior to and at the time this action was instituted, the disease of smallpox was prevalent in various parts of the State, and particularly in the city of Olympia, which comprises school district No. 1. of Thurston County. On or about January 16, 1922, the director of public health of the State of Washington notified the county health officer of Thurston County, and the city health officer of the city of Olympia, that in his opinion, owing to the prevalence of smallpox in the public schools of the district referred to, all pupils in such schools were "contacts," or, in common parlance, possible carriers of the disease, and that because of the conditions, the regu-

¹ State ex rel. Lehman v. Partlow et al., Directors of School Dist. No. 1, Thurston County, 205 Pac. 420.

lation hereinbefore set out should be vigorously enforced, and that no child should be permitted to attend the public schools except upon compliance with the conditions contained in the regulation. The county health officer thereupon gave notice to respondents, as directors of school district No. 1, of the directions so received from the State director of health. Following the receipt of this notice, and on January 19, 1922, respondents, as such directors, issued to all to be affected thereby a bulletin or notice containing the following language:

"Prior to February 1, 1922, it will be necessary for every pupil, janitor, and teacher in the schools of Thurston County to present to the school authorities either a physician's certificate showing that the individual concerned has had smallpox or a similar certificate evidencing vaccination within the last seven years. Those who do not comply with the foregoing regulations are to be excluded from the schools and isolated in their homes for a period of 18 days immediately following the date mentioned."

Hazel Lehman, appellant's minor daughter, was then a pupil in one of the schools of the district. It is not claimed that she was in fact a disease carrier, that she then had smallpox, or was other than a normal healthy child. She failed, however, to comply with the regulation of the State board of health or with the notice from the school board, and was accordingly excluded from the school in which she was enrolled on February 1, 1922. Thereupon, appellant as relator filed his affidavit in the superior court for Thurston County seeking a writ of mandate requiring the school directors to readmit the pupil named to the public schools. An alternative writ was issued, to which respondents made return. A demurrer was interposed to the return, and upon a hearing thereon the demurrer was overruled. Appellant electing to stand upon his demurrer, a judgment followed, quashing the alternative writ and dismissing the action, from which appellant prosecutes this appeal.

It will thus be seen that the facts are not in dispute. The question presented is one of law only, namely, has the State board of health power to promulgate and enforce the regulation mentioned?

Section 1, article 20, of the constitution provides:

"There shall be established by law a State board of health and a bureau of vital statistics in connection therewith, with such powers as the legislature may direct."

Pursuant to this mandate, sections 5404 to 5415, inclusive, of Rem. Code, were enacted. Section 5404, creating the board, has been superseded by section 56, chapter 7, of the Laws of 1921. The later act, while it changes the personnel of the board in part, does not in any degree affect or change its powers and duties. These powers and duties are defined in section 5406, which reads:

"The State board of health shall have supervision of all matters relating to the preservation of the life and health of the people of the State. The board shall have supreme authority in matters of quarantine and may declare and enforce it when none exists, may modify, relax, or abolish it when it has been established. The board may have special or standing orders or regulations for the prevention of the spread of contagious or infectious diseases, and for governing the receipt and conveyance of remains of deceased persons, and such other sanitary matters as admit of and may best be controlled by universal rule. It may also make and enforce orders in local matters, when in the opinion of the State board of health an emergency exists and the local board of health has neglected or refused to act with sufficient promptness or efficiency, or when no such local board has been established, and all expenses so incurred shall be paid by the county in which such services are rendered out of the general fund of such county. It shall be the duty of all local boards of health, health authorities and officials, officers of the State institutions, police officers, sheriffs, constables, and all other officers and employees of the State, or any county, city, or township thereof, to enforce such quarantine and sanitary rules and regulations as may be adopted by the State board of health, and in the event of failure or refusal on the part of any member of said boards or other officials, or persons in this section mentioned to so act, he or they shall be subject to a fine of not less than \$50 upon first conviction, and upon conviction of second offense of not less than \$100. The board shall make careful inquiry as to the cause of disease, especially when contagious, infectious, epidemic or endemic, and take prompt action to control and suppress it. It shall respond promptly, when called upon by the State or local government and municipal or township boards of health, to investigate and report upon the water supply, sewerage, disposal of excreta, heating, plumbing, or ventilation of any place or public building."

Section 5408 provides for a commissioner of health to be selected by the State Board of health, and section 5410, in defining the duties of the commissioner of health, among other things, provides:

"It shall be his duty to strictly enforce all laws passed for the protection of the public health and improvement of sanitary conditions of the State and to enforce all rules, regulations, and orders of the State board of health. He shall investigate all epidemics of diseases that may occur in the State and advise the local health officers as to the best measures to be taken to prevent and control such disease and he shall supervise all measures taken by local health officers for the suppression and control of disease."

Chapter 7, Laws of 1921, provides for a director of health in lieu of a commissioner of health, and in section 59 of that act it is provided:

"The director of health shall have the power and it shall be his duty:

"(1) To exercise all the powers and perform all the duties now vested in, and required to be performed by, the State commissioner of health."

So, then, we have here a rule or regulation adopted by the State board of health under the authority given it by section 5406 and enforced by the director of health under the express terms of section 5410, and since in *State ex rel. McBride v. Superior Court* (103 Wash. 409, 174 Pac. 973), after a full investigation and consideration, this court in an exhaustive opinion upheld the statute, declared the acts and rulings of the board of health to be final and conclusive, and not to be reviewed by the courts or denied because the authority may be abused or the law maladministered, and that the finding of a fact by a properly constituted health officer was final and binding upon the public as well as upon the courts, there seems to be nothing further which need be said, especially as there is no allegation or contention that the action complained of in this case was in anywise arbitrary, capricious, or unreasonable.

Some contention is made that, because in section 5406, supra, school directors are not specifically named as among the officers whose duty it is to enforce the rules and regulations of the State board of health, the notice given by respondents should be held to be ineffectual for any purpose. But it follows from what has already been said that the order of the director of health, being valid, was binding upon all affected thereby, and the respondents, as school directors, had no more right to disregard or disobey that order in their official capacity than they would have as individuals.

A further argument is based upon the latter part of respondents' notice, which provides:

"Those who do not comply with the foregoing regulations are to be excluded from the schools and isolated in their homes for a period of 18 days immediately following the date mentioned"—

it being urged that the provision with reference to isolation was not embraced in the regulation of the State board of health; that the school board had no authority to add anything thereto, or to adopt rules of its own upon that subject. It is doubtful if, under the allegations of appellant's affidavit, which stands as a complaint in this case, or his prayer for relief, this question can now be presented; but, in any event, the 18-day isolation period had fully expired before this case was reached for hearing in this court, and the question is therefore a moot one only, which, under our well-established rule, we will not now consider or decide.

The judgment is affirmed.

DEATH RATES IN A GROUP OF INSURED PERSONS.

DEATH RATES FOR PRINCIPAL CAUSES, MARCH AND APRIL, 1922.

The accompanying table is taken from the Statistical Bulletin of the Metropolitan Life Insurance Co. for May, 1922, and presents the mortality data of the industrial department of the company for March and April, 1922, and April and year, 1921. The figures are based on a strength of approximately 14,000,000 insured persons.

The death rate among this group (9.2 per 1,000 lives exposed) declined 20.7 per cent in April as compared with March. Particularly noticeable are the lower figures for diphtheria, influenza, and pneumonia, the rate for the latter declining from 158.7 per 100,000 in March to 97 in April. An increase in the rate for measles is noted for April, and it is stated that the rate for this disease (7.2) is the highest registered in the industrial department of the company since July, 1920.

Death rates (annual basis) for principal causes per 100,000 lives exposed, for March and April, 1922, and April and year 1921.

Cause of death.	Death rate per 100,000 lives exposed.			
	Apr., 1922.	Mar., 1922.	Apr., 1921.	Year 1921 ¹
Total, all causes.....	918.2	1,157.5	950.5	853.8
Typhoid fever.....	3.4	3.0	3.3	6.6
Measles.....	7.2	5.1	5.4	3.1
Scarlet fever.....	5.6	6.6	9.4	6.9
Whooping cough.....	2.0	3.8	3.8	3.9
Diphtheria.....	12.1	19.1	18.4	23.3
Influenza.....	38.9	70.6	14.8	8.6
Tuberculosis (all forms).....	118.2	125.5	133.4	115.1
Tuberculosis of respiratory system.....	107.9	116.3	121.8	103.6
Cancer.....	63.2	76.1	70.0	70.4
Cerebral hemorrhage.....	63.2	75.8	57.3	60.9
Organic diseases of heart.....	134.7	168.2	124.3	115.0
Pneumonia (all forms).....	97.0	158.7	88.0	66.5
Other respiratory diseases.....	14.2	22.9	13.1	14.1
Diarrhea and enteritis.....	5.2	7.2	9.6	13.9
Bright's disease (chronic nephritis).....	70.9	87.5	76.8	66.7
Puerperal state.....	17.3	22.5	22.0	19.5
Suicides.....	8.5	7.3	7.2	7.5
Homicides.....	4.0	5.8	6.1	6.6
Other external causes (excluding suicides and homicides).....	42.6	49.7	45.1	58.2
Traumatism by automobile.....	8.3	8.4	10.2	11.9
All other causes.....	210.0	242.1	213.5	189.0

¹ Based on provisional estimate of lives exposed to risk in 1921.

DEATHS DURING WEEK ENDED JUNE 17, 1922.

Summary of information received by telegraph from industrial insurance companies for week ended June 17, 1922, and corresponding week, 1921. (From the Weekly Health Index, June 20, 1922, issued by the Bureau of the Census, Department of Commerce.)

	Week ended June 17, 1922.	Corresponding week, 1921.
Policies in force.....	50,058,107	47,150,195
Number of death claims.....	8,289	7,599
Death claims per 1,000 policies in force, annual rate.....	8.6	8.4

Deaths from all causes in certain large cities of the United States during the week ended June 17, 1922, infant mortality, annual death rate, and comparison with corresponding week of 1921. (From the Weekly Health Index, June 20, 1922, issued by the Bureau of the Census, Department of Commerce.)

City.	Estimated population July 1, 1922.	Week ended June 17, 1922.		Annual death rate per 1,000 corresponding week, 1921.	Deaths under 1 year.		Infant mortality rate, week ended June 17, 1922. ³
		Total deaths.	Death rate. ¹		Week ended June 17, 1922.	Corresponding week, 1921.	
Total.....	27,749,821	6,086	11.4	11.1	762	879	.....
Akron, Ohio.....	208,435	30	7.5	8.4	5	8	53
Albany, N. Y.....	116,223	28	12.6	12.7	4	5	90
Atlanta, Ga.....	220,047	58	13.7	19.1	11	9	.....
Baltimore, Md.....	762,222	198	13.5	14.8	26	33	73
Birmingham, Ala.....	191,017	60	16.4	15.4	9	11	.....
Boston, Mass.....	764,017	205	14.0	11.1	19	19	51
Bridgeport, Conn.....	143,555	31	11.3	11.1	4	4	50
Buffalo, N. Y.....	528,163	108	10.7	6.4	19	9	75
Cambridge, Mass.....	110,944	29	13.6	9.0	4	3	73
Camden, N. J.....	121,915	32	13.7	13.1	2	2	31
Chicago, Ill.....	2,635,288	561	10.3	9.8	85	84	.....
Cincinnati, Ohio.....	404,865	97	12.6	13.7	12	16	80
Cleveland, Ohio.....	854,003	167	10.2	8.1	25	30	64
Columbus, Ohio.....	253,455	63	13.0	9.8	4	2	42
Dallas, Tex.....	171,974	37	11.2	13.3	4	13	.....
Dayton, Ohio.....	161,824	32	10.3	6.3	1	3	17
Denver, Colo.....	267,591	71	13.8	10.3	6	4	.....
Detroit, Mich.....	993,678	179	9.4	8.7	30	44	58
Fall River, Mass.....	120,790	25	10.8	12.5	3	7	42
Fort Worth, Tex.....	114,717	25	11.4	.....	3	3	.....
Grand Rapids, Mich.....	143,572	22	8.0	7.8	3	3	50
Houston, Tex.....	150,087	57	19.3	11.9	1	4	.....
Indianapolis, Ind.....	333,257	74	11.6	10.2	10	6	76
Jersey City, N. J.....	305,911	57	9.7	12.7	8	16	51
Kansas City, Mo.....	343,988	99	15.0	12.7	10	9	.....
Los Angeles, Calif.....	634,866	192	15.8	14.3	20	14	83
Louisville, Ky.....	236,577	54	11.9	13.5	6	6	65
Lowell, Mass.....	114,423	14	6.4	11.0	5	4	84
Memphis, Tenn.....	167,882	72	22.4	17.9	5	10	.....
Milwaukee, Wis.....	476,603	76	8.3	8.5	12	16	59
Minneapolis, Minn.....	400,970	75	9.8	9.0	7	3	33
Nashville, Tenn.....	122,832	27	11.5	13.2	7	6	.....
New Bedford, Mass.....	127,542	27	11.0	12.9	8	9	119
New Haven, Conn.....	169,967	27	8.3	8.1	2	2	24
New Orleans, La.....	399,616	137	17.9	16.6	9	22	.....
New York, N. Y.....	5,839,745	1,265	11.2	10.2	163	168	63
Newark, N. J.....	431,792	87	10.5	11.9	16	14	71
Norfolk, Va.....	124,915	22	9.2	15.9	5	13	89
Oakland, Calif.....	223,279	40	8.9	11.5	1	5	13
Omaha, Nebr.....	200,739	59	15.3	7.7	7	4	75
Paterson, N. J.....	138,521	35	13.2	12.1	4	2	62
Philadelphia, Pa.....	1,894,500	421	11.6	13.1	49	58	58
Pittsburgh, Pa.....	607,902	132	11.3	11.8	16	26	51
Portland, Ore.....	269,240	47	9.1	9.8	3	6	30
Providence, R. I.....	241,011	50	10.8	13.5	10	21	79
Richmond, Va.....	178,365	42	12.3	19.3	6	15	73
Rochester, N. Y.....	311,548	56	9.4	9.6	6	7	46
St. Louis, Mo.....	795,008	180	11.8	12.0	11	24	.....
St. Paul, Minn.....	239,836	44	9.6	9.4	10	3	94
Salt Lake City, Utah.....	123,918	25	10.5	11.6	4	4	60
San Francisco, Calif.....	529,792	117	11.5	12.0	14	8	81
Seattle, Wash.....	315,312	56	9.3	8.1	3	8	25
Spokane, Wash.....	104,445	24	12.0	14.5	1	0	21
Springfield, Mass.....	140,052	19	7.1	8.8	1	4	14
Syracuse, N. Y.....	181,012	45	13.0	10.3	7	4	85
Toledo, Ohio.....	260,717	48	9.6	10.9	9	5	88
Trenton, N. J.....	125,075	32	13.3	11.9	1	0	15
Washington, D. C.....	437,571	102	12.2	11.8	12	19	69
Wilmington, Del.....	115,568	23	10.4	12.9	3	5	58
Worcester, Mass.....	188,449	34	9.4	13.2	8	7	87
Yonkers, N. Y.....	105,422	21	10.4	11.1	2	4	42
Youngstown, Ohio.....	144,970	24	8.6	5.6	1	2	13

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1921. Cities left blank are not in the registration area for births.

³ Enumerated population Jan. 1, 1920.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended June 24, 1922.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		COLORADO.	
	Cases.	(Exclusive of Denver.)	Cases.
Diphtheria	15	Chicken pox.....	7
Malaria.....	35	Diphtheria.....	10
Ophthalmia neonatorum.....	2	Measles.....	1
Pellagra.....	13	Mumps.....	2
Polio-myelitis.....	1	Pneumonia.....	1
Scarlet fever.....	11	Scarlet fever.....	7
Tuberculosis.....	29	Tuberculosis.....	53
Typhoid fever.....	42	Typhoid fever.....	1
Whooping cough.....	13	Vincent's angina.....	1
		Whooping cough.....	1
ARKANSAS.		CONNECTICUT.	
Chicken pox.....	5	Chicken pox.....	13
Hookworm disease.....	1	Diphtheria.....	30
Influenza.....	3	Dysentery (amebic).....	1
Malaria.....	96	German measles.....	4
Measles.....	5	Influenza.....	16
Pellagra.....	15	Malaria.....	1
Scarlet fever.....	1	Measles:	
Smallpox.....	4	Branford.....	12
Trachoma.....	3	Bridgeport.....	8
Tuberculosis.....	11	East Haven.....	46
Typhoid fever.....	24	Greenwich.....	9
Whooping cough.....	10	Hamden.....	13
		Hartford.....	15
CALIFORNIA.		New Haven.....	57
Cerebrospinal meningitis:		North Haven.....	12
Alameda.....	1	Stamford.....	13
Los Angeles.....	1	Suffield.....	14
Diphtheria.....	137	Waterbury.....	9
Influenza.....	3	Scattering.....	44
Lethargic encephalitis—Piedmont.....	1	Mumps.....	11
Measles.....	45	Pneumonia (lobar).....	22
Polio-myelitis—Tulare County.....	1	Scarlet fever.....	39
Scarlet fever.....	80	Smallpox.....	4
Smallpox.....	25		
Typhoid fever.....	17		

CONNECTICUT—continued.

	Cases.
Tetanus.....	1
Tuberculosis (all forms).....	29
Typhoid fever.....	14
Whooping cough.....	40

FLORIDA.

Dengue.....	6
Diphtheria.....	7
Influenza.....	54
Malaria.....	18
Paratyphoid fever.....	2
Pneumonia.....	4
Scarlet fever.....	7
Smallpox.....	5
Tetanus.....	1
Typhoid fever.....	16

GEORGIA.

Chicken pox.....	5
Diphtheria.....	3
Dysentery (bacillary).....	4
Hookworm disease.....	13
Influenza.....	2
Malaria.....	41
Measles.....	5
Mumps.....	1
Paratyphoid fever.....	3
Pneumonia.....	1
Scarlet fever.....	2
Septic sore throat.....	1
Smallpox.....	10
Tuberculosis (all forms).....	9
Typhoid fever.....	28
Whooping cough.....	23

ILLINOIS.

Cerebrospinal meningitis—Olney.....	1
Diphtheria:	
Chicago.....	102
Scattering.....	56
Influenza.....	5
Pneumonia.....	91
Poliomyelitis—Taylorville.....	1
Scarlet fever:	
Chicago.....	44
Scattering.....	36
Smallpox.....	11
Typhoid fever.....	15
Whooping cough.....	178

INDIANA.

Diphtheria.....	20
Rabies in animals:	
Johnson County.....	1
Scott County.....	1
Scarlet fever.....	11
Smallpox.....	9
Typhoid fever.....	3

IOWA.

Diphtheria.....	15
Scarlet fever.....	18
Smallpox.....	11

KANSAS.

	Cases.
Chicken pox.....	25
Diphtheria.....	20
German measles.....	1
Malaria.....	2
Measles.....	15
Mumps.....	2
Pneumonia.....	5
Scarlet fever.....	38
Smallpox.....	14
Tuberculosis.....	101
Typhoid fever.....	15
Whooping cough.....	77

LOUISIANA.

Cerebrospinal meningitis.....	1
Diphtheria.....	6
Malaria.....	52
Pellagra.....	4
Scarlet fever.....	4
Smallpox.....	8
Typhoid fever.....	34
Whooping cough.....	16

MARYLAND.¹

Cerebrospinal meningitis.....	1
Chicken pox.....	22
Diphtheria.....	18
Influenza.....	4
Lethargic encephalitis.....	2
Malaria.....	6
Measles.....	135
Mumps.....	63
Paratyphoid fever.....	1
Pellagra.....	1
Pneumonia (all forms).....	21
Scarlet fever.....	25
Tuberculosis.....	53
Typhoid fever.....	10
Whooping cough.....	37

MASSACHUSETTS.

Cerebrospinal meningitis.....	5
Chicken pox.....	66
Conjunctivitis (suppurative).....	8
Diphtheria.....	118
German measles.....	11
Influenza.....	2
Malaria.....	1
Measles.....	678
Mumps.....	73
Ophthalmia neonatorum.....	12
Pneumonia (lobar).....	22
Poliomyelitis.....	1
Scarlet fever.....	101
Smallpox.....	1
Trachoma.....	2
Tuberculosis (all forms).....	199
Typhoid fever.....	13
Whooping cough.....	71

MINNESOTA.

Chicken pox.....	9
Diphtheria.....	43
Influenza.....	1

¹ Week ended Friday.

MINNESOTA—continued.

	Cases.
Measles.....	83
Pneumonia.....	4
Scarlet fever.....	89
Smallpox.....	13
Tuberculosis.....	69
Typhoid fever.....	3
Whooping cough.....	5

MISSISSIPPI.

Diphtheria.....	11
Scarlet fever.....	6
Smallpox.....	4
Typhoid fever.....	30

MISSOURI.

Chicken pox.....	20
Diphtheria.....	39
Epidemic sore throat.....	4
Measles.....	68
Mumps.....	2
Pneumonia.....	5
Scarlet fever.....	15
Smallpox.....	5
Tetanus.....	1
Trachoma.....	2
Tuberculosis.....	58
Typhoid fever.....	7
Whooping cough.....	14

MONTANA.

Diphtheria.....	4
Rocky Mountain spotted or tick fever:	
Bridger.....	1
Leroy.....	1
Scarlet fever.....	7
Typhoid fever.....	3

NEBRASKA.

Chicken pox.....	18
Diphtheria.....	10
Measles:	
Lincoln.....	12
Omaha.....	16
Scattering.....	2
Mumps.....	7
Scarlet fever.....	12
Smallpox.....	3
Tuberculosis.....	1
Typhoid fever.....	1
Whooping cough.....	6

NEW JERSEY.

Cerebrospinal meningitis.....	1
Chicken pox.....	72
Diphtheria.....	78
Influenza.....	2
Malaria.....	4
Measles.....	497
Pneumonia.....	41
Scarlet fever.....	104
Typhoid fever.....	15
Whooping cough.....	154

NEW MEXICO.

Chicken pox.....	1
Conjunctivitis.....	3
Diphtheria.....	17

NEW MEXICO—continued.

	Cases.
Malaria.....	3
Mumps.....	2
Pneumonia.....	1
Scarlet fever.....	6
Tuberculosis.....	30
Typhoid fever.....	5

NEW YORK.

(Exclusive of New York City.)

Diphtheria.....	97
Measles.....	686
Pneumonia.....	99
Scarlet fever.....	123
Smallpox.....	4
Typhoid fever.....	16
Whooping cough.....	161

NORTH CAROLINA.

Cerebrospinal meningitis.....	1
Chicken pox.....	37
Diphtheria.....	34
German measles.....	1
Measles.....	29
Ophthalmia neonatorum.....	1
Scarlet fever.....	7
Septic sore throat.....	1
Smallpox.....	21
Typhoid fever.....	82
Whooping cough.....	201

OREGON.

Anthrax.....	1
Cerebrospinal meningitis.....	1
Chicken pox.....	13
Diphtheria:	
Portland.....	13
Scattering.....	7
Mumps.....	1
Pneumonia.....	13
Scarlet fever.....	4
Septic sore throat.....	1
Smallpox.....	8
Tuberculosis.....	11
Typhoid fever.....	4
Whooping cough.....	7

SOUTH DAKOTA.

Chicken pox.....	7
Diphtheria.....	2
Measles.....	2
Scarlet fever.....	4
Smallpox.....	14
Tuberculosis.....	9
Typhoid fever.....	4
Whooping cough.....	5

TEXAS.

Diphtheria.....	10
Measles.....	5
Pellagra.....	2
Scarlet fever.....	4
Smallpox.....	101
Typhoid fever.....	6

VERMONT.

	Cases.
Chicken pox.....	8
Diphtheria.....	6
Measles.....	14
Mumps.....	6
Pneumonia.....	2
Scarlet fever.....	11
Smallpox.....	1
Typhoid fever.....	2
Whooping cough.....	32

VIRGINIA.

Smallpox—Montgomery County.....	1
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WASHINGTON.

Chicken pox.....	32
Diphtheria:	
Seattle.....	10
Scattering.....	5
Measles:	
Wenatchee.....	16
Scattering.....	12
Mumps.....	18
Pneumonia.....	3
Scarlet fever.....	14
Smallpox.....	14
Tuberculosis.....	228
Typhoid fever.....	11
Whooping cough.....	26

WEST VIRGINIA.

Diphtheria.....	3
Measles.....	8
Smallpox.....	8

WEST VIRGINIA—continued.

	Cases.
Tuberculosis:	
Parkersburg.....	1
Wheeling.....	19
Typhoid fever.....	1

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis.....	1
Chicken pox.....	45
Diphtheria.....	13
German measles.....	6
Measles.....	37
Pneumonia.....	4
Scarlet fever.....	2
Smallpox.....	3
Tuberculosis.....	14
Whooping cough.....	111
Scattering:	
Cerebrospinal meningitis.....	1
Chicken pox.....	30
Diphtheria.....	30
German measles.....	6
Influenza.....	4
Measles.....	55
Pneumonia.....	7
Scarlet fever.....	37
Smallpox.....	19
Tuberculosis.....	37
Typhoid fever.....	6
Whooping cough.....	71

WYOMING.

Mumps.....	1
Pneumonia (lobar).....	2
Smallpox.....	6

Delayed Reports for Week Ended June 17, 1922.

DISTRICT OF COLUMBIA.

	Cases.
Chicken pox.....	22
Diphtheria.....	2
Measles.....	27
Scarlet fever.....	3
Tuberculosis.....	19
Typhoid fever.....	4
Whooping cough.....	8

KENTUCKY.

Chicken pox.....	2
Diphtheria.....	14
Dysentery.....	1
German measles.....	1
Lethargic encephalitis—Jefferson County.....	1
Measles:	
Fayette County.....	8
Harrison County.....	20
Scott County.....	10
Scattering.....	4
Pellagra.....	1

KENTUCKY—continued.

	Cases.
Pneumonia.....	5
Poliomyelitis—Jefferson County.....	1
Scarlet fever.....	7
Septic sore throat.....	1
Smallpox.....	7
Trachoma.....	14
Tuberculosis:	
Jefferson County.....	18
Scattering.....	4
Typhoid fever.....	11
Whooping cough.....	5

MAINE.

Chicken pox.....	15
Diphtheria.....	6
Measles.....	27
Paratyphoid fever.....	1
Scarlet fever.....	28
Tuberculosis.....	9
Whooping cough.....	6

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pollagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
<i>May, 1922.</i>										
Idaho.....		3			4			22	14	6
Illinois.....	15	825	86	50	3,292	2	7	664	232	131
Indiana.....	1	142	3		253		1	147	147	10
Maine.....	1	29	27		41			119		9
Maryland.....	2	111	89	18	1,504		2	175		31
Minnesota.....	12	266	17		617			425	238	26
North Carolina.....	6	90			392		2	76	139	99
North Dakota.....		12	22		3			48	84	1
Pennsylvania.....	12	846		2	5,960		4	1,185	2	186
Rhode Island.....		63	13	2	37			37		
South Carolina.....		176	20	6	1	8	1	2	21	15
South Dakota.....	1	15			7		1	59	55	3
Washington.....	3	92	15		45		1	68	109	21
West Virginia.....	1	66	80		67		2	57	36	42
Wisconsin.....	11	144	279		147		1	343	188	35

RECIPROCAL NOTIFICATION.

Minnesota—May, 1922.

Cases of communicable diseases referred during May, 1922, to other State health departments by the Department of Health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Poliomyelitis: St. Paul Hospital, St. Paul, Ramsey County.	Baldwin, St. Croix County, Wis....	Patient ill in St. Paul Hospital; patient's home in Baldwin.
Tuberculosis: Dodge Center, Dodge County.	Alton, Sioux County, Iowa.....	Specimen examined in Minnesota State laboratory, positive.
State reformatory, Sherburne County.	Winnipeg, Manitoba, Canada.....	Patient left reformatory for Winnipeg. Incipient case.
Sandbeach Sanatorium, Lake Park, Becker County.	Marion, Linn County, Iowa.....	Patient left sanatorium for home. Case moderately advanced.
Pokegama Sanatorium, Pokegama, Pine County.	Grand Forks, Grand Forks County, N. Dak.	1 case far advanced and 1 moderately advanced; left sanatorium for homes.
Thomas Hospital, Minneapolis, Hennepin County.	Buxton, Traill County, N. Dak. Almont, Morton County, N. Dak.... Carthage, Miner County, S. Dak.	1 case moderately advanced and 1 incipient; left hospital for their homes.
Oronoco Sanatorium, Rochester, Olmsted County.	Brooklyn, Kings County, N. Y..... Youngwood, Westmoreland County, Pa.	1 advanced case left sanatorium for home, 1 fatal case removed to Brooklyn.
Winona, Winona County..	Mason City, Cerro Gordo County, Iowa.	Patient left Winona General Hospital for his home.
Mayo Clinic, Rochester, Olmsted County.	Los Angeles, Los Angeles County, Calif. Wray, Wray County, Colo. Urbana, Champaign County, Ill. • Charles City, Floyd County, Iowa. Emmetsburg, Palo Alto County, Iowa. Faucett, Buchanan County, Mo. Fort Bayard, Grant County, N. Mex. Tulsa, Tulsa County, Okla. Gakdale, Morgan County, Tenn. Sault Ste. Marie, Algoma County, Ontario, Canada.	5 cases advanced, 4 moderately advanced, 1 apparently arrested; left clinic for their homes.
U. S. Veterans' Hospital, St. Paul, Ramsey County.	Prescott, Yavapai County, Ariz..... Fort Lyon, Colo. Fort Bayard, Grant County, N. Mex. State Sanatorium, N. Dak. Grand Forks, Grand Forks County, N. Dak. Aberdeen, Brown County, S. Dak. Hot Springs, Falls River County, S. Dak. Hetland, Kingsbury County, S. Dak. Sioux Falls, Minnehaha County, S. Dak.	11 active cases transferred to other sanatoriums. 1 active and 3 inactive left hospital for their homes.

ROCKY MOUNTAIN SPOTTED OR TICK FEVER.

Washington.

Under date of June 21, 1922, five cases of Rocky Mountain spotted or tick fever were reported in the State of Washington. Crab Creek, Lincoln County, was named as the source of the infection. One death was reported at Spokane.

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922.

CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended June 10, 1922.		City.	Median for previous years.	Week ended June 10, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				New Jersey:			
Birmingham.....	0	1	.....	Garfield.....	0	1	.....
California:				New York:			
San Francisco.....	0	1	.....	Mount Vernon.....	0	.....	1
Connecticut:				New York.....	7	7	.....
Bridgeport.....	0	1	1	North Tonawanda.....	0	1	.....
Georgia:				Yonkers.....	0	.....	1
Atlanta.....	0	.....	2	Ohio:			
Illinois:				Youngstown.....	0	1	.....
Chicago.....	3	1	.....	Pennsylvania:			
Kansas:				New Castle.....	0	1	.....
Kansas City.....	0	1	.....	Rhode Island:			
Massachusetts:				Pawtucket.....	0	.....	1
Lowell.....	0	1	.....	Tennessee:			
Lynn.....	0	.....	1	Chattanooga.....	0	1	1
Michigan:				West Virginia:			
Highland Park.....	0	1	.....	Wheeling.....	0	.....	1
Missouri:							
Kansas City.....	0	1	.....			

DIPHTHERIA.

See p. 1600; also Telegraphic weekly reports from States, p. 1589, and Monthly summaries by States, p. 1593.

INFLUENZA.

City.	Cases.		Deaths, week ended June 10, 1922.	City.	Cases.		Deaths week ended June 10, 1922.
	Week ended June 11, 1921.	Week ended June 10, 1922.			Week ended June 11, 1921.	Week ended June 10, 1922.	
Alabama:				Michigan:			
Birmingham.....			1	Detroit.....	4	1	.....
California:				Minnesota:			
Los Angeles.....	2	1	.....	Minneapolis.....			1
Sacramento.....			1	Missouri:			
San Diego.....	1	1	1	Kansas City.....		1	1
San Francisco.....	4		.....	New Jersey:			
Florida:				Newark.....	3	6	.....
Tampa.....		1	1	Trenton.....	1	.....	.....
Georgia:				New York:			
Brunswick.....	1	.....	.....	Coboes.....	1	.....	.....
Illinois:				New York.....	12	13	2
Chicago.....		5	2	Saratoga Springs.....		1	.....
Pekin.....	1	.....	.....	Ohio:			
Maryland:				Barberton.....			1
Baltimore.....	2	.....	.....	Cleveland.....			1
Massachusetts:				Pennsylvania:			
Cambridge.....		1	.....	Philadelphia.....	3	1	1
Haverhill.....		1	.....	Rhode Island:			
Saugus.....	2	2	.....	Providence.....		1	.....

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

LEPROSY.

City.	Cases.	Deaths.
New York:		
New York.....	2	.....

LETHARGIC ENCEPHALITIS.

California:		
San Francisco.....	1	.....

MALARIA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Maryland:		
Anniston.....	1	.....	Baltimore.....	1	.....
Mobile.....		1	Massachusetts:		
Tuscaloosa.....	1	.....	Boston.....	3	.....
Arkansas:			New Jersey:		
Little Rock.....	2	.....	Newark.....	1	.....
North Little Rock.....	1	.....	New York:		
Florida:			New York.....	3	.....
Tampa.....	5	.....	North Carolina:		
Georgia:			Salisbury.....		1
Augusta.....	1	.....	Tennessee:		
Brunswick.....	1	.....	Memphis.....	3	.....
Kansas:			Texas:		
Parsons.....	1	.....	Beaumont.....		2
Kentucky:			Dallas.....	3	.....
Owensboro.....	1	.....	Houston.....		1
Louisiana:					
New Orleans.....	1	.....		

MEASLES.

See p. 1600; also Telegraphic weekly reports from States, p. 1589, and Monthly summaries, by States, p. 1593.

PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Kentucky:		
Birmingham.....	1	.....	Louisville.....	1	1
Montgomery.....		1	Louisiana:		
Arkansas:			New Orleans.....	2	2
Fort Smith.....	1	.....	Tennessee:		
Little Rock.....	1	.....	Memphis.....		1
Georgia:			Texas:		
Savannah.....		1	Dallas.....		1
			Waco.....	1	.....

PNEUMONIA (ALL FORMS).

Alabama:			California—Continued.		
Birmingham.....		7	San Francisco.....	8	7
Mobile.....		1	Stockton.....		2
Montgomery.....		1	Colorado:		
Arkansas:			Denver.....		
Little Rock.....	1	.....	Connecticut:		
California:			Bridgeport.....		1
Bakersfield.....		2	Hartford.....	2	1
Los Angeles.....	28	5	New Haven.....		7
Oakland.....	4	2	New London.....	1	.....
Pasadena.....	1	.....	Norwalk.....		1
Sacramento.....		1	Stonington.....		1
San Diego.....		1	Waterbury.....		1

CITY REPORTS FOR WEEK ENDED JUNE 16, 1922—Continued.

PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Delaware:			Missouri:		
Wilmington.....		2	Jefferson City.....		7
District of Columbia:			St. Joseph.....		4
Washington.....		9	Springfield.....		3
Florida:			Montana:		
Tampa.....		1	Billings.....	2	1
Georgia:			Great Falls.....		2
Atlanta.....		5	Missoula.....		1
Rome.....	1		Nebraska:		
Savannah.....		2	Omaha.....		6
Illinois:			New Hampshire:		
Aurora.....	3	2	Concord.....		1
Chicago.....	126	37	New Jersey:		
Danville.....	4	1	Clifton.....	1	
East St. Louis.....	1		East Orange.....		1
Elgin.....	1		Elizabeth.....		1
Freeport.....	1		Harrison.....	1	
Kewanee.....		1	Hoboken.....		6
Oak Park.....		1	Jersey City.....	1	
Rock Island.....		1	Kearny.....		3
Indiana:			Morristown.....	1	
East Chicago.....		1	Newark.....	23	3
Fort Wayne.....		3	Orange.....	2	1
Hammond.....		1	Passaic.....	3	2
Indianapolis.....		1	Paterson.....	3	
La Fayette.....		3	Summit.....		1
Muncie.....		1	Trenton.....	4	1
South Bend.....		3	New York:		
Iowa:			Albany.....	6	
Muscatine.....		1	Buffalo.....	3	6
Kansas:			Elmira.....	3	3
Coffeyville.....	1		Lockport.....		1
Lawrence.....	1		Mount Vernon.....	2	1
Topeka.....	2	1	New York.....	222	119
Wichita.....	1		Niagara Falls.....	2	1
Kentucky:			North Tonawanda.....	2	1
Covington.....		3	Peekskill.....	2	
Lexington.....		1	Rochester.....	12	8
Louisville.....		3	Rome.....		3
Louisiana:			Saratoga Springs.....	2	1
New Orleans.....	5	4	Schenectady.....	4	1
Maine:			Syracuse.....		8
Auburn.....	1		Troy.....	1	
Bath.....		1	Watertown.....		1
Portland.....		1	White Plains.....		1
Maryland:			Yonkers.....		2
Baltimore.....	24	18	North Carolina:		
Massachusetts:			Charlotte.....		2
Attleboro.....		1	Salisbury.....		1
Boston.....	16	13	Ohio:		
Brockton.....		1	Akron.....	2	
Cambridge.....		2	Barberton.....	1	
Fall River.....		5	Cambridge.....	1	2
Framingham.....		1	Cincinnati.....		2
Greenfield.....	1		Cleveland.....	16	8
Haverhill.....		1	Cleveland Heights.....	1	
Lowell.....		1	Dayton.....	1	
Lynn.....	1		Lancaster.....		1
New Bedford.....		1	Mansfield.....	3	1
Newburyport.....	1		Niles.....		1
Quincy.....		1	Springfield.....		1
Weymouth.....		1	Toledo.....		6
Worcester.....		4	Youngstown.....		1
Michigan:			Zanesville.....		1
Ann Arbor.....		1	Oklahoma:		
Detroit.....	48	12	Oklahoma.....		1
Grand Rapids.....	3		Oregon:		
Hamtramck.....		1	Portland.....		5
Highland Park.....		1	Pennsylvania:		
Kalamazoo.....		1	Philadelphia.....	40	31
Muskegon.....		1	Rhode Island:		
Port Huron.....	1		Pawtucket.....		2
Minnesota:			Providence.....	2	1
Duluth.....	4	2	Tennessee:		
Minneapolis.....		3	Memphis.....		4
Rochester.....		1	Nashville.....		1
St. Paul.....		2			
Winona.....		1			

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued

PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Texas:			Virginia:		
Beaumont.....		1	Lynchburg.....		1
Corpus Christi.....		1	Portsmouth.....		2
Dallas.....		3	Richmond.....		3
El Paso.....		4	Roanoke.....		1
Fort Worth.....		2	Wisconsin:		
Utah:			Kenosha.....	2	
Provo.....	2		Milwaukee.....	12	
Salt Lake City.....		4	Racine.....		1
Vermont:			Superior.....		1
Burlington.....		1	Wyoming:		
Rutland.....		2	Cheyenne.....	1	

POLIOMYELITIS (INFANTILE PARALYSIS).

City.	Median for years 1915 to 1921, inclusive.	Week ended June 10, 1922.	
		Cases.	Deaths.
Maryland:			
Baltimore.....	0	1	
Rhode Island:			
Providence.....	0	2	
Virginia:			
Lynchburg.....	0	1	

RABIES IN ANIMALS.

City.	Cases.	City.	Cases.
California:			
Pasadena.....	3	New Jersey:	
Riverside.....	1	West Orange.....	1
Kentucky:			
Louisville.....	1	Virginia:	
		Petersburg.....	1

SCARLET FEVER.

See p. 1600; also Telegraphic weekly reports from States, p. 1589, and Monthly summaries by States, p. 1593.

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended June 10, 1922.		City.	Median for previous years.	Week ended June 10, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Nebraska:			
Birmingham.....	5	2		Lincoln.....	4	2	
Mobile.....	1	5		New York:			
California:				Niagara Falls.....	0	24	
Bakersfield.....	0	1		North Carolina:			
Los Angeles.....	1	4		Durham.....	0	5	
San Diego.....	0	1		Raleigh.....	0	1	
San Francisco.....	1	2		North Dakota:			
Stockton.....	0	1		Grand Forks.....	0	1	
Colorado:				Ohio:			
Denver.....	17	3		Cincinnati.....	2	1	
Connecticut:				Columbus.....	1	1	
Bridgeport.....	0	2		Hamilton.....	0	2	
New London.....	0	1	1	New Philadelphia.....	0	1	
Georgia:				Springfield.....	0	4	
Atlanta.....	9	2		Toledo.....	0	4	
Augusta.....	0	11		Oklahoma:			
Macon.....	0	2		Oklahoma.....	6	2	
Savannah.....	0	1		Oregon:			
Indiana:				Portland.....	7	6	
Anderson.....	0	2		South Dakota:			
Fort Wayne.....	3	1		Sioux Falls.....	0	1	
Kokomo.....	2	2		Texas:			
Iowa:				Dallas.....	2	1	
Burlington.....	0	1		Fort Worth.....	4	1	
Des Moines.....	6	2		Utah:			
Kansas:				Salt Lake City.....	8	5	
Coffeyville.....	1	2		Virginia:			
Hutchinson.....	1	3		Danville.....	1	1	
Kansas City.....	3	1		Washington:			
Wichita.....	8	1		Bellingham.....	0	1	
Kentucky:				Everett.....	0	1	
Louisville.....	1	1		Spokane.....	3	5	
Louisiana:				Yakima.....	2	3	
New Orleans.....	6	1		West Virginia:			
Michigan:				Fairmont.....	0	1	
Ann Arbor.....	0	1		Wisconsin:			
Minnesota:				Ashland.....	0	1	
Duluth.....	2	1		Janesville.....	0	2	
Minneapolis.....	33	2		Milwaukee.....	7	4	
St. Paul.....	7	3		Racine.....	0	3	
Missouri:				Superior.....	0	13	
St. Louis.....	5	1		Wausau.....	0	4	
Montana:							
Billings.....	1	2					

TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
California:			New York:		
San Diego.....		1	New York.....		1
Florida:			Ohio:		
Tampa.....		1	Columbus.....	1	1
Illinois:			Pennsylvania:		
Chicago.....	1		Philadelphia.....	1	1
Michigan:			Texas:		
Detroit.....		1	Fort Worth.....	1	1
Missouri:					
St. Louis.....	1				

TUBERCULOSIS.

See p. 1600; also Telegraphic weekly reports from States, p. 1589.

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended June 10, 1922.		City.	Median for previous years.	Week ended June 10, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				New Jersey—Continued.			
Mobile.....	0	1		East Orange.....	0	1	
Arkansas:				Morristown.....	0	1	
Fort Smith.....	0	1		Newark.....	1	2	
Little Rock.....	0	5		Rahway.....	0	1	
California:				Trenton.....	1		1
Los Angeles.....	2	1		New York:			
Oakland.....	1	1		Albany.....	1	1	
Riverside.....	0	1	1	Buffalo.....	1	1	
San Francisco.....	2	1		Lockawanna.....	0	1	
Stockton.....	0	4		New York.....	17	7	
Colorado:				Port Chester.....	0	1	
Denver.....	1		1	Watertown.....	0	1	
Connecticut:				North Carolina:			
Hartford.....	0		1	Charlotte.....	0	3	
New Haven.....	1	1		Durham.....	0	2	
District of Columbia:				Raleigh.....	0	1	
Washington.....	2	11	1	Wilmington.....	0	1	
Florida:				Winston-Salem.....	3	1	
Tampa.....		1		Ohio:			
Georgia:				Cambridge.....		1	
Augusta.....	0	6		Cincinnati.....	1	2	
Brunswick.....	0	1		Cleveland.....	4		1
Macon.....	0	6		Martins Ferry.....	0	1	
Savannah.....	4	3	1	Sandusky.....	1		1
Illinois:				Steubenville.....	0	2	
Chicago.....	5	2		Oregon:			
Kewanee.....	1	2		Portland.....	1	2	
Indiana:				Pennsylvania:			
Hammond.....	0	1		Allentown.....	0	1	
La Fayette.....	0	1	1	Canonsburg.....	0	18	
Mishawaka.....	0	1		Chester.....	0	1	
Kentucky:				Harrisburg.....	0	1	
Louisville.....	1	1	1	Norristown.....	0	1	
Owensboro.....		1		Philadelphia.....	9	5	
Louisiana:				Pittsburgh.....	2	1	
New Orleans.....	5	1		South Carolina:			
Maine:				Charleston.....	1	3	
Lewiston.....	0	1		Columbia.....	2	2	
Maryland:				Greenville.....	0	3	
Baltimore.....	4	6		Tennessee:			
Massachusetts:				Knoxville.....	1	5	
Arlington.....	0	1		Nashville.....	3		1
Cambridge.....	0	2		Texas:			
Chicagope.....	0	1		Fort Worth.....	0	1	
Haverhill.....	0	1		Galveston.....	2	2	
Lynn.....	0	1		Houston.....	4	2	
Worcester.....	0	1		Virginia:			
Michigan:				Danville.....	0	1	
Grand Rapids.....	1	2		Norfolk.....	2	1	
Pontiac.....	0	1		Richmond.....	1	1	
Saginaw.....	0	3		Roanoke.....	0	1	
Minnesota:				Washington:			
Minneapolis.....	1	2		Seattle.....	0	1	
Rochester.....	0		1	Tacoma.....	0	2	
Missouri:				Walla Walla.....	0	1	
Kansas City.....	1		1	West Virginia:			
St. Joseph.....	0	1	1	Charleston.....	0		1
Montana:				Huntington.....	0		1
Billings.....	0	1		Wisconsin:			
New Jersey:				Oshkosh.....	0	1	
Belleville.....	0	1		Sheboygan.....	1	1	

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Anniston.....	17,734		1						2	7
Birmingham.....	178,270	42	1	1	6		1		3	2
Mobile.....	60,151	22								2
Montgomery.....	43,464	17								3
Arkansas:										
Fort Smith.....	28,811	6	2				1			1
Little Rock.....	64,997								1	
California:										
Alameda.....	28,806	5					3			1
Bakersfield.....	18,638	12							1	1
Berkeley.....	55,886	7	4		1		1			
Eureka.....	12,923	4	1		5					1
Glendale.....	13,536	7								
Long Beach.....	55,893	10			1		5			
Los Angeles.....	576,673	165	47	3	5		15	1	39	20
Oakland.....	216,361	48	10	4			6		1	3
Pasadena.....	45,354	15	4	4	2				6	1
Richmond.....	16,843	1								
Riverside.....	19,341	7	1							
Sacramento.....	65,857	18	6						1	1
San Bernardino.....	18,721	11			1				1	
San Diego.....	74,683	25	3		8		3		6	1
San Francisco.....	508,410	124	21	3			19		13	8
Santa Ana.....	15,485	5								
Santa Barbara.....	19,441	6								
Stockton.....	40,296	10	5				3			1
Colorado:										
Denver.....	256,369	77	15	2	3		5			10
Pueblo.....	42,908	8	2		1		1		2	1
Connecticut:										
Bridgeport.....	143,538	27	9	2	10				3	2
Bristol.....	20,620	1			8				1	
Derby.....	11,239	2								
Fairfield.....	11,475	2								
Greenwich.....	22,123				1		1			
Hartford.....	188,089	34	7		37		2		5	
Manchester.....	18,370	0			2					
Milford.....	10,193	3			17					
New Haven.....	162,519	33	5	1	101	1	6		5	1
New London.....	25,688	8	2		2		2		1	
Norwalk.....	27,700	7								
Stonington.....	10,236		1							
Waterbury.....	91,410	16	3		6		2		6	
Delaware:										
Wilmington.....	110,168	24					11			
District of Columbia:										
Washington.....	437,571	106	3		47		2		24	9
Florida:										
Tampa.....	51,252	10	2							
Georgia:										
Atlanta.....	200,616	61					2			2
Augusta.....	52,548	12							2	1
Brunswick.....	14,413	1							1	
Macon.....	52,995				1					
Savannah.....	83,252	32	1				2			5
Valdosta.....	10,788	5								2
Idaho:										
Boise.....	21,393	2								
Pocatello.....	15,001	3								
Illinois:										
Alton.....	24,682	6	1				1			
Aurora.....	36,397	18	4		12				5	1
Bloomington.....	28,725	6	2						2	
Blue Island.....	11,424	2			2					
Centralia.....	12,491	4								
Champaign.....	15,873				1					
Chicago.....	2,701,705	560	109	3	549	7	63		263	50
Chicago Heights.....	19,653	2								
Cicero.....	44,995	5	1		6					
Danville.....	33,750	11	1						4	2
East St. Louis.....	66,740	9	1						1	
Elgin.....	27,454	8			1				1	
Evanston.....	37,215	10			4				3	

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Massachusetts—Continued.										
Belmont	10,749	0			4		1			
Beverly	22,561		3		5					
Boston	748,060	164	37	1	188	1	32	1	67	13
Braintree	10,580	6	3		2		2			
Brockton	66,138	11	1		7		1		1	
Brookline	37,748	14	1		15		2		2	
Cambridge	109,694	25	2		64		2		4	
Chelsea	43,184	10	1		8		1			2
Chicopee	36,214	9	1		6					3
Clinton	12,979	2								
Danvers	11,108		1						1	
Everett	40,120	1	1		4		2		3	
Fall River	120,485	25	5	1	7		2		6	
Frammingham	17,033	5			1		1			1
Gardner	16,971	3							1	
Greenfield	15,462	2			1				1	
Haverhill	53,884	16			1					
Holyoke	60,203	15			35		2		3	1
Lawrence	94,270	23			13	1			4	1
Leominster	19,744	4	4		5				1	1
Lowell	112,479	25	4		5		5		3	5
Lynn	99,148	28	4	1	18		4		4	3
Malden	49,103	9	1		14	1	5		3	1
Medford	39,038	8			9				1	
Melrose	18,204	7			15		3			
Methuen	15,189	8			13	1	2			
New Bedford	121,217	16	3		1		1		6	3
Newburyport	15,618	1			2				1	
North Adams	22,282	8								
Northampton	21,951		1		21		1			
Peabody	19,552		1		4				1	
Pittsfield	41,751	10	2		1		5		2	
Plymouth	13,045	4								
Quincy	47,876	6			17				3	2
Salem	42,529	17	1		33				1	
Saugus	16,874	3			1		1			
Somerville	93,691	15	1		12		1		3	
Southbridge	14,245	4								
Springfield	129,563	22	1		97		1		1	2
Taunton	37,137	15			1					
Wakefield	13,025	3	1		8					
Waltham	30,915	6	1		4		1		2	
Watertown	21,457	0			7					
Webster	13,258	3	1		17					
West Springfield	13,443	1								
Westfield	18,601	3								
Weymouth	15,057	4								
Winthrop	15,455	2	2		1				2	1
Woburn	16,574	3								
Worcester	179,754	28	3				2		3	2
Michigan:										
Alpena	11,101	0								
Ann Arbor	19,516	11			18				1	1
Battle Creek	36,164		1		8		1			
Benton Harbor	12,233		1							
Detroit	998,739	176	37	2	161	6	40		47	26
Grand Rapids	137,634	33	1				2		3	2
Hamtramck	48,615	1	2		2					
Highland Park	46,499	10	1		16		4			
Holland	12,166	0	1							
Jackson	48,374	7			1		1			
Kalamazoo	48,858	13	6		1		3		2	
Marquette	12,718	3					1		1	
Muskegon	36,570	11	1							
Pontiac	34,273	9			42					
Port Huron	25,944	10			18		1		1	
Saginaw	61,903	12	4		10		3			1
Sault Ste. Marie	12,096	3					1			
Minnesota:										
Duluth	98,917	13	1		9		1		9	1
Fairbault	11,069	3								
Hibbing	15,069	3	1				8			1
Mankato	12,469		1							

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Minnesota—Continued.										
Minnesota.....	380,682	87	13		56		22	3	27	10
Minnesota.....	12,722	13								
Rochester.....	14,472	2			1					
St. Cloud.....	284,986	88	4		60	1	31		11	9
St. Paul.....	19,143	10			5					1
Winona.....										
Missouri:										
Independence.....	11,686	4								
Kansas City.....	324,410	74	2		31		5	1	7	4
St. Joseph.....	77,939	20	1							
St. Louis.....	772,987	196	17		7		13		38	10
Springfield.....	39,631	24								1
Montana:										
Anaconda.....	11,688	1								
Billings.....	15,100	6		1			2			
Great Falls.....	24,121	5	4						1	1
Missoula.....	12,688	10								
Nebraska:										
Lincoln.....	54,934	14	1		26			1		
Omaha.....	191,661	83	5	2	13		3		1	1
Nevada:										
Reno.....	12,016	8							1	1
New Hampshire:										
Berlin.....	16,104	2					1			1
Concord.....	2,187	11			17					1
Dover.....	13,029	1			1					1
Keene.....	11,210	3			2		4			
Nashua.....	28,379	3			1					
New Jersey:										
Asbury Park.....	12,400	4			4					
Atlantic City.....	50,682	14	1				1		1	
Bayonne.....	76,754		1		5		2		1	
Belleville.....	15,660				6					
Blomfield.....	23,019	4			3		1			
Clifton.....	26,470				11		3			
East Orange.....	50,719				30		3		1	
Elizabeth.....	95,682	1	4		11		5			1
Garfield.....	19,331	1	1		4		2		1	
Harrison.....	15,721				5		1			
Hoboken.....	68,186	21	3	1	1		1		4	
Jersey City.....	287,864		27		18		20		14	
Kearny.....	28,734	11	1		29		2		2	1
Montclair.....	28,810	7			3		4		1	2
Morristown.....	12,548	3			2		1		1	
Newark.....	414,216	99	12		233	1	21		44	9
Orange.....	38,268	9			7		4		3	
Passaic.....	63,324	11	1		45		7		3	1
Paterson.....	135,886		4		94		10		13	
Perth Amboy.....	41,707	6			3				3	
Phillipsburg.....	16,923	3								
Rahway.....	11,042	5								1
Summit.....	10,174	6			24					
Trenton.....	119,289	40	6		78	4	4		13	3
Union.....	20,651	2			1		2		2	
West Hoboken.....	40,068	3			3		2		1	
West New York.....	29,826	1			5		5		3	
West Orange.....	15,573	3	1		6		2		3	1
New Mexico:										
Albuquerque.....	15,157	3		1					3	1
New York:										
Albany.....	113,344		6						3	
Auburn.....	26,192	9	1	1						
Buffalo.....	506,775	124	14		2		36	1	30	11
Cohoes.....	22,987	5	4							
Elmira.....	45,305	19			13		4		3	
Geneva.....	14,648	3								
Hornell.....	15,025	2			42					
Hudson.....	11,745	1								
Ithaca.....	17,034	2							1	
Jamestown.....	38,917	9	2		5		7			
Lackawanna.....	17,918	1								
Little Falls.....	13,029	2								
Lockport.....	21,308	9	1		1		1			2
Mount Vernon.....	42,726	12			44				1	

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New York—Continued.										
Newburgh.....	30,386	5			98				1	1
New York.....	5,621,151	1,284	246	25	1,268	38	159	6	1,288	1,111
Niagara Falls.....	80,700	10	4		70		6		3	1
North Tonawanda.....	15,482	8	2		4		1			
Ogdensburg.....	14,609	7								
Olean.....	20,506	9					1		1	
Peeckskill.....	15,888	4			4				2	
Port Chester.....	16,573	7	1		7					
Poughkeepsie.....	35,000	5			4					
Rochester.....	286,750	79	17		129	5	5		33	8
Rome.....	26,341	11	1				1			2
Saratoga Springs.....	35,181	4			1		1		2	
Schenectady.....	88,723	12	1				3		6	7
Syracuse.....	171,717	45	7	1	3		5		7	3
Troy.....	72,013	16					3		4	2
Watertown.....	31,285	9	2		1		1			
White Plains.....	21,031	4					1		2	
Yonkers.....	100,226	20	3		36		7		2	2
North Carolina:										
Charlotte.....	46,338	19			1		1		4	1
Durham.....	21,719	10							1	2
Raleigh.....	24,418	10			1		1			1
Rocky Mount.....	12,742	10								
Salisbury.....	13,884	6								
Wilmington.....	32,372	11	1				2		2	
Winston-Salem.....	48,395	15							3	1
North Dakota:										
Grand Forks.....	14,010						1			
Ohio:										
Akron.....	208,435	23	3		90		10		1	
Ashtabula.....	22,082	4								
Barberton.....	18,811	3								
Bucyrus.....	10,425	4							1	1
Cambridge.....	12,794	4	1		2				4	
Canton.....	87,682	11	1		16		1		1	2
Cincinnati.....	401,267	94	8		81	1	3		19	15
Cleveland.....	766,886	148	17		376	5	34		59	18
Cleveland Heights.....	15,236				9		2			
Columbus.....	237,081	57	2		68		1		3	3
Dayton.....	152,559	30	3		8		7		1	
East Cleveland.....	27,292				20		1			
Findlay.....	17,021	4								1
Fremont.....	12,468	5							1	
Hamilton.....	39,673	9			5				1	
Ironton.....	14,007	5								
Kenmore.....	12,683				29					
Lancaster.....	14,706	5								
Lorain.....	37,295						1		2	
Mansfield.....	27,324	7	4		2		1		2	
Marion.....	27,991		1						1	
Martins Ferry.....	11,634	2					2			
Middletown.....	23,594	2								1
Newark.....	26,718	5	3	1	1		2			
New Philadelphia.....	10,718		1		1				2	
Niles.....	13,080	3								
Norwood.....	24,966	2			2					
Piqua.....	15,044	5	3		1					1
Salem.....	10,305	1			20					
Sandusky.....	22,897	10								1
Springfield.....	60,840	15			1		1		1	3
Staubenville.....	28,508	8							2	
Toledo.....	243,109	68	12		115		7		10	5
Youngstown.....	132,358	23	3	1	50		1		5	3
Zanesville.....	29,569	10	2				1		1	1
Oklahoma:										
Oklahoma City.....	91,258	20	1				2		4	4
Oregon:										
Portland.....	256,288	55	3				2		14	3
Pennsylvania:										
Allentown.....	73,502		11		1				4	
Altoona.....	60,331				4		1			
Ambridge.....	12,780								1	

¹ Pulmonary tuberculosis only.

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Pennsylvania—Continued.										
Berwick.....	12,181				9					
Bethlehem.....	50,358		1		5					
Braddock.....	20,879		2		3				1	
Bristol.....	10,273				14					
Canonsburg.....	10,682				15					
Carlisle.....	10,916		1		11					
Carrick.....	10,504		3							
Chester.....	58,080				25		5			
Donora.....	14,131		1							
Dubois.....	13,681				1					
Easton.....	33,813		8							
Erie.....	93,372		3		9		1		3	
Farrell.....	15,586						1			
Greensburg.....	15,033		1							
Harrisburg.....	75,917		1		23					
Hazleton.....	32,277		1		6					
Homestead.....	20,452				1					
Jeannette.....	10,627		1		1					
Lancaster.....	53,150		3				4			
McKeesport.....	45,975				19					
McKees Rocks.....	16,713		1		3					
Mahanoy City.....	15,599		1							
Monessen.....	18,179		2							
Mount Carmel.....	17,469				1					
New Castle.....	44,938		1		7		1			
Norristown.....	32,319		1		1		1			
North Braddock.....	14,928				5					
Oil City.....	21,274								1	
Old Forge.....	12,237		1							
Olyphant.....	10,236								2	
Philadelphia.....	1,823,158	412	54	6	282	2	65		64	47
Pittsburgh.....	588,198		5		80		10		8	
Plymouth.....	16,500								1	
Pottsville.....	21,876						1			
Reading.....	107,784		4		39		1		1	
Scranton.....	187,783		4		12		3		4	
Shamokin.....	21,204				15				1	
Steelton.....	13,428						1			
Sunbury.....	16,721				4					
Uniontown.....	15,662				4					
Warren.....	14,256		1				1			
Wilkes-Barre.....	73,833		2		15				1	
Wilkinsburg.....	24,403				73		1			
Williamsport.....	36,198		2		9					
Woodlawn.....	12,495		1							
York.....	47,512		1				1			
Rhode Island:										
Cranston.....	29,407	3								
Newport.....	30,255	2					1			
Pawtucket.....	64,248	22					2			1
Providence.....	237,595	50	4		1		3			5
South Carolina:										
Charleston.....	67,957	19								1
Greenville.....	23,127	9								1
South Dakota:										
Sioux Falls.....	25,176	3	1							
Tennessee:										
Chattanooga.....	57,895		1							
Knoxville.....	77,818				12				2	2
Memphis.....	162,351	57	3	1			1		14	6
Nashville.....	118,342	41	1				1		3	2
Texas:										
Beaumont.....	40,422	9								
Corpus Christi.....	10,522	4								
Dallas.....	153,976	40			18		2		4	5
El Paso.....	77,543	44	1		1		5			8
Fort Worth.....	106,482	17	2		1				1	1
Galveston.....	44,255	11	3							4
Houston.....	138,076	21	3		1		1			4
Waco.....	38,500	9					1			1

CITY REPORTS FOR WEEK ENDED JUNE 10, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Utah:										
Provo.....	10,303	2								
Salt Lake City.....	118,110	36	1							2
Vermont:										
Burlington.....	22,779	11	1							
Rutland.....	14,954	7			1					
Virginia:										
Alexandria.....	18,060	5								
Danville.....	21,539	7	1							
Lynchburg.....	29,956		1							
Norfolk.....	115,777									
Petersburg.....	31,002	13	1		1		1		4	3
Portsmouth.....	54,387	8					2			1
Richmond.....	171,667	48			49		1		12	4
Roanoke.....	50,842	19	3				2			2
Washington:										
Bellingham.....	25,570						1			
Everett.....	27,644		2							
Seattle.....	315,652		2		1		3			
Spokane.....	104,437		2				3			
Tacoma.....	96,965		1						11	
West Virginia:										
Bluefield.....	15,282	4	1							
Charleston.....	39,608	8	1							
Charlsburg.....	27,869	8								2
Fairmont.....	17,851		3		1					
Huntington.....	50,177	20								1
Martinsburg.....	12,515				4				1	
Morgantown.....	12,127						2		7	
Moundsville.....	10,669				10		1			
Parkersburg.....	20,050	7								1
Wheeling.....	54,322	10	3		4		4			1
Wisconsin:										
Appleton.....	19,561						1		1	
Beloit.....	21,284	1	1				1		4	
Fond du Lac.....	23,427	6							2	1
Green Bay.....	31,017						3			
Janesville.....	18,293	3								
Kenosha.....	40,472	4	1							
La Crosse.....	30,363				3		5			
Marinette.....	13,610						1			
Milwaukee.....	457,147		13		18		7		20	
Oshkosh.....	33,162	7					1		6	
Racine.....	58,593	9			1		5		2	
Sheboygan.....	30,955		5							
Superior.....	39,624	3					1			
Waukesha.....	12,558						2			
Wausau.....	18,661				1				2	
West Allis.....	13,765								3	
Wyoming:										
Cheyenne.....	13,829	3					1			

FOREIGN AND INSULAR.

CHINA.

Plague—Hongkong.

During the week ended June 17, 1922, 48 cases of plague with 36 deaths were reported at Hongkong, China, of which 47 cases occurred among Chinese and 1 case in the person of a Hindu.

GREAT BRITAIN.

Typhus Fever—Embarkation Detention Camp—Southampton.

The occurrence of a fatal case of typhus fever in a Polish transmigrant at the embarkation detention camp at Southampton, England, was reported June 21, 1922.

PANAMA.

Communicable Diseases—May, 1922.

During the month of May, 1922, communicable diseases were reported as follows to the chief health officer, Panama Canal, Panama:

Disease.	Place.			Non-resident.	Total.
	Panama.	Colon.	Canal Zone.		
Chicken pox.....	14	.....	11	.....	25
Diphtheria.....	7	5	5	.....	17
Malaria.....	16	6	66	21	99
Measles.....	2	.....	2	.....	4
Fellagra.....	1	.....	1	.....	2
Pneumonia.....	20	4	2	.....	26
Relapsing fever.....	.....	.....	3	.....	3
Smallpox.....	.....	.....	.....	1	1
Trachoma.....	.....	.....	1	.....	1
Tuberculosis.....	9	5	8	4	26
Typhoid fever.....	.....	.....	.....	1	1

RUSSIA.

Communicable Diseases—Lettonia—March, 1922.¹

During the period March 1 to 31, 1922, communicable diseases were reported in Lettonia, Russia, as follows:

Disease.	Cases.	Disease.	Cases.
Diphtheria.....	85	Typhoid fever.....	48
Measles.....	173	Typhus fever.....	212
Scarlet fever.....	183	Recurrent typhus.....	8
Smallpox.....	16		

¹Public Health Reports, May 5, 1922, p. 1107.

UNION OF SOUTH AFRICA.

Plague—Plague-Infected Rodents—Orange Free State.

During the week ended March 11, 1922, a case of plague, occurring in a European child, was reported on Brakfontein farm, Boschrand siding, about 10 miles south of Kroonstad, Orange Free State. The case was stated to have been discovered February 25, 1922. Three cases of plague occurring among natives were reported at Boschrand farm, January 25, 1922.²

The finding of plague-infected rodents in the Orange Free State has been reported as follows: Week ended April 22, 1922—a plague-infected mouse found on Vlakraagte farm, Kroonstad district. The locality was stated to be about 15 miles north of Bothaville and 7 miles north of Rietfontein farm, where a plague-infected squirrel was reported found February 17, 1922.³ Week ended May 6, 1922—a dead plague-infected mouse found on Trucart's Berg farm, Kroonstad district. The farm was stated to be about 14 miles north of Bothaville and about 10 miles west of the Rietfontein, Goedhoop, and Vlakraagte farms, on which plague-infected wild rodents were reported found in February and March, 1922.

Smallpox—Typhus Fever—March, 1922.

During the month of March, 1922, smallpox and typhus fever were reported in the Union of South Africa as follows: Smallpox, 58 cases with 4 deaths occurring among the colored population. Typhus fever, 383 cases with 38 deaths, of which 1 case with 1 death occurred among the white population.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended June 30, 1922.⁴

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Feb. 12-18, 1922: Deaths, 1,337.
Rangoon.....	Apr. 23-29.....	24	20	
Philippine Islands:				
Provinces—				
Bulacan.....	.....do.....	3	2	

² Public Health Reports, Mar. 31, 1922, p. 788.

³ Public Health Reports, May 5, 1922, p. 1107.

⁴ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended June 30, 1922—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Ribeira Grande.....	May 7-13.....	2	1	9 miles from Ponta Delgada.
Brazil:				
Pernambuco.....	Apr. 30-May 6.....	3	2	
China:				
Foochow.....	May 2-8.....	3	1	1 plague rat.
Hongkong.....	June 11-17.....	48	36	One of these cases in Hindu; others, Chinese.
Egypt.....				Jan. 1-May 18, 1922: Cases, 133; deaths, 60.
City—				
Alexandria.....	May 14-17.....	4	3	
Province—				
Assiout.....	May 15.....	1	.....
Benisouef.....	May 12-17.....	2	.....
Gharbleh.....	May 12-16.....	1	5	
Girgeh.....	May 12.....	1	.....
Minieh.....	May 12-15.....	1	2	
India:				
Bombay.....	Apr. 16-22.....	39	32	
Karachi.....	May 14-30.....	44	38	
Madras.....	May 7-13.....	19	7	Presidency.
Rangoon.....	Apr. 23-29.....	59	52	
Java:				
East Java—				
Soerabaya.....	Apr. 16-22.....	2	2	
Mesopotamia:				
Bagdad.....	Dec. 1-31.....	2	1	
Union of South Africa:				
Orange Free State—				
Brakfontein farm.....	Mar. 5-11.....	1	.....	Boschrand siding, about 10 miles south of Kroonstad. Case in European child.
Trucart's Berg farm.....	Apr. 30-May 6.....	.....	.....	Plague-infected mouse found. Locality 14 miles north of Bothaville. Plague-infected wild rodents found, February and March, 1922, on farms in vicinity.

SMALLPOX.

Brazil:				
Porto Alegre.....	May 14-20.....	.....	1	
Canada:				
Ontario—				
Ottawa.....	June 4-10.....	2	.....
Toronto.....	June 4-10.....	1	.....
Cuba:				
Cienfuegos.....	June 4-10.....	1	.....
India.....				Feb. 12-25, 1922: Deaths, 521.
Bombay.....	Apr. 16-22.....	6	3	
Karachi.....	May 14-20.....	6	1	
Rangoon.....	Apr. 23-May 6.....	15	3	
Madras.....	May 7-13.....	47	34	
Mesopotamia:				
Bagdad.....	Dec. 1-31.....	78	45	
Mexico:				
San Luis Petosi.....	June 4-10.....	.....	1	
Russia:				
Lettonia.....	Mar. 1-31.....	16	.....
Union of South Africa.....				Mar. 1-31, 1922: Cases, 58; deaths, 4; in colored population.

TYPHUS FEVER.

Algeria:				
Algiers.....	May 21-31.....	5	.....
Egypt:				
Cairo.....	Mar. 5-18.....	8	5	
Germany:				
Berlin.....	Mar. 5-11.....	1	.....
Frankfort on Oder.....	Mar. 12-18.....	5	.....	In quarantine camp; of these, 2 cases in Volga Germans.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended June 30, 1922—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Germany—Continued. Government District— Gumbinnen.....	Feb. 25-Mar. 25....	9		Of these, 3 in refugees of German origin from Crimea. Repatriated.
Stettin.....	Feb. 12-Mar. 11....	10	2	
Great Britain: Southampton.....	June 21.....	1	1	In Polish transmigrant at embarkation detention camp.
Palestine: Jerusalem.....	May 23-29.....	1		
Portugal: Oporto.....	May 28-June 3....	1	1	
Russia: Lettonia.....	Mar. 1-31.....	212		Recurrent typhus, 8 cases. Mar. 1-31, 1922: Cases, 383; deaths, 38. Of these, 1 case with 1 death occurred in white population. Outbreaks. Do.
Union of South Africa: Cape Province.....	Apr. 30-May 6.....			
Transvaal.....	Apr. 30-May 6.....			

Reports Received from December 31, 1921, to June 30, 1922.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China: Amoy.....	Apr. 23-29.....			One suspect case.
India: Bombay.....	Oct. 30-Nov. 5....	1		Oct. 2-Dec. 31, 1921: Deaths, 37,749. (Corrected report.) Jan. 1-Feb. 18, 1922: Deaths, 5,661.
Do.....	Jan. 29-Apr. 1....	2	1	
Calcutta.....	Oct. 23-Dec. 31....	71	60	
Do.....	Jan. 1-May 6.....	862	723	
Karachi.....	Nov. 6-12.....		1	
Madras.....	Dec. 11-31.....	3	1	
Do.....	Jan. 1-Apr. 8.....	15	9	
Rangoon.....	Oct. 1-Dec. 31....	30	24	
Do.....	Jan. 1-Apr. 29....	127	103	
Indo-China: Saigon.....	Nov. 6-12.....	1	1	Including 100 km. surrounding country.
Do.....	Jan. 29-Apr. 22....	43	39	
Java: West Java— Batavia.....	Nov. 1-7.....	2	2	At Lebak.
Philippine Islands: Manila.....	Nov. 13-Dec. 31....	49	18	
Do.....	Jan. 1-Apr. 15....	84	28	
Province— Bulacan.....	Dec. 25-31.....	1		
Do.....	Feb. 12-Apr. 29....	6	5	
Cavite.....	Jan. 1-7.....	1	1	
Cebu.....	Jan. 8-14.....	1		
Pampanga.....	Dec. 25-31.....	1		
Rizal.....	Jan. 15-28.....	18	12	
Zambales.....	Dec. 11-31.....	31	18	
Do.....	Jan. 1-7.....	5	4	
Poland: Warsaw.....	Jan. 29-Feb. 25....	1		Aug. 14-Sept. 10, 1921: Cases, 4; deaths, 1.
Russia.....				Including the Ukraine; outbreaks reported, May 2, 1922. Present.
Kharkoff.....	Jan. 28.....			
Kief.....	Dec. 15-Jan. 11....	259		
Lettonia— Riga.....				At quarantine station in October, 1921; 1 case.
Lithuania.....				Present, Feb. 19, 1922, with 30 cases and mortality of 33 per cent, Kovno and vicinity.
Odessa.....	Jan. 28.....			Present.
Siam: Bangkok.....	Oct. 23-Dec. 24....	8	4	Corrected report. Apr. 16-22, 1922: Reported present in interior cities.
Do.....	Jan. 29-Apr. 29....	19	9	
Syria.....				

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Asia Minor:				
Smyrna.....	Nov. 27-Dec. 3....	1	1	
Do.....	Apr. 9-15.....	1		
Australia:				
New South Wales—				
Sydney.....	Nov. 27-Dec. 3....	2	1	Dec. 7-13, 1921: 4 plague rats.
Do.....	Jan. 29-Apr. 29....	15	2	Jan. 15-21, 1922: 1 plague rat.
Queensland—				
Aramac.....	Mar. 19-25.....	1	1	Inland town on railroad about 150 miles from coast.
Brisbane.....	Oct. 30-Dec. 31....	27	20	Total, Aug. 22-Dec. 31, 1921: Cases, 41; deaths, 27. Total infected rats, 54. Total cases, Jan. 1-Apr. 29, 1922: 10. Total infected rats, 17.
Do.....	Jan. 1-Mar. 18....	10		
Bundaberg.....	Mar. 5-11.....	1		
Cairns.....	Oct. 30-Dec. 31....	6	3	Plague rats, 9.
Do.....	Jan. 1-7.....		1	Pestis minor.
Cooktown.....	Oct. 30-Nov. 5....	1		
Ingham.....				Nov. 6-Dec. 24, 1921: Plague rats, 14. Jan. 1-14, 1922: 2 plague rats.
Inisfail.....				Nov. 27-Dec. 3, 1921: 1 plague rat.
Ipswich.....	Dec. 11-17.....	1	1	
Port Douglas.....	Nov. 13-19.....	1	1	
Townsville.....	Nov. 20-Dec. 3....	2	2	Total cases, 27; deaths, 18.
Do.....	Jan. 1-14.....		2	To Jan. 14, 1922: Cases, 32; deaths, 21.
Azores:				
Islands—				
Fayal.....				Jan. 16-Feb. 8, 1922: Cases, 6; deaths, 4.
Horta.....	Feb. 2-8.....	4	2	
St. Michael.....				Nov. 27-Dec. 31, 1921: Cases, 23; deaths, 9. Jan. 1-May 13, 1922: Cases, 93; deaths, 55. Occurring at localities 3 to 9 miles from port of Ponta Delgada.
Arrifes.....	Dec. 25-31.....	1	1	3 miles from port.
Do.....	Jan. 1-7.....	1		
Fenas d'Ajuda.....	Nov. 27-Dec. 3....			Present. 6 miles from port.
Do.....	Jan. 15-21.....	3	2	
Ribeira Grande.....	Nov. 13-Dec. 10....	19	8	9 miles from port.
Do.....	Jan. 8-May 13....	11	7	
Livramonto.....	Dec. 4-10.....	2		Vicinity of Ponta Delgada.
Ponta Delgada.....	do.....	1		
Brazil:				
Bahia.....	Oct. 30-Dec. 31....	13	12	
Do.....	Jan. 1-Mar. 25....	16	12	
Para.....	Feb. 6-12.....	1	1	
Pernambuco.....	Feb. 26-May 6....	4	3	
Porto Alegre.....	Mar. 12-18.....	3	2	
Rio de Janeiro.....	Jan. 22-28.....	1	1	
British East Africa:				
Uganda.....	Aug. 1-Dec. 31....	256	229	Aug. 1-Oct. 31, 1921: Reports of inspectors, deaths, 343; reports of chiefs, deaths, 651.
Do.....	Jan. 1-31.....	57	56	
Kenya Colony—				
Nairobi.....	Apr. 2-8.....	2	2	
Cape Verde Islands:				
St. Vincent.....	Mar. 16.....			Present. No plague mortality reported during previous 5-month period. August, 1921: Cases, 6; deaths, 3.
Ceylon:				
Colombo.....	Oct. 30-Dec. 31....	13	10	Oct. 30-Dec. 24, 1921: Rodent plague, 6.
Do.....	Jan. 1-May 6.....	33	29	Infected rats, 12.
Chile:				
Antofagasta.....				Mar. 5-11, 1922: 1 plague rat.
China:				
Amoy.....	Apr. 16-May 6.....		31	Present in surrounding country, Feb. 19-Mar. 4, 1922.
Foochow.....	Apr. 16-May 8.....	24	13	One plague rat. Plague present, Apr. 3-15, 1922.
Hongkong.....	Nov. 20-Dec. 17....	6		
Do.....	Jan. 1-June 17....	931	527	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil.....	Nov. 16-Dec. 31...	18	6	Rats examined, 2,958; found infected, 90. Total, July-Dec. 15, 1921: Cases, 28. Jan. 1-May 15, 1922: Rats examined, 27,000; found infected, 747.
Do.....	Jan. 1-Apr. 15.....	43	15	
Naranjito.....	Mar. 1-15.....	1		
Egypt.....				Jan. 1-Dec. 31, 1921: Cases, 356; deaths, 153. Jan. 1-May 18, 1922: Cases, 133, deaths, 60.
City—				Feb. 12-18, 1922: 1 plague rodent. Mar. 12-16, 1922: 1 case, 1 death.
Alexandria.....	Dec. 5-30.....	7	2	
Do.....	Jan. 17-May 17.....	21	14	
Port Said.....	Dec. 20.....	1		
Do.....	Mar. 15-May 6.....	3	4	Septicemic, 3 cases, 3 deaths.
Suez.....	Nov. 22-Dec. 31.....	16	9	
Do.....	Jan. 2-May 11.....	22	9	
Province—				
Assiout.....	Mar. 25-May 15.....	7	6	Septicemic.
Assouan.....	Feb. 28.....	1	1	Do.
Benisouef.....	Apr. 24-May 17.....	8	1	
Fayoum.....	Feb. 17-Mar. 10.....	7	2	
Gharbieh.....	Feb. 17-May 16.....	16	7	
Girgeh.....	Jan. 12-May 12.....	6		Do.
Keneh.....	Dec. 1.....	1	1	Do.
Do.....	Jan. 21-Feb. 28.....	5	3	Pneumonic, 1 case, 1 death; septicemic, 1 case.
Minieh.....	Feb. 21-May 15.....	9	6	Septicemic.
France:				
Dunkirk.....	Mar. 24.....		1	In hospital, from steamship City of Genoa, from Bombay.
Great Britain:				
Liverpool.....				Mar. 31, 1922: Finding of 3 plague-infected rats reported, from ware-house in which material from steamship Warwickshire was stored. ¹
Greece:				
Preveza.....	Feb. 8.....			Outbreak. Port on the Ionian sea.
India:				
Bombay.....	Oct. 23-Dec. 24.....	7	6	Oct. 23-Dec. 31, 1921: Cases, 11,229; deaths, 8,465. Jan. 1-Apr. 23, 1922: Cases, 39,783, deaths, 31,487.
Do.....	Jan. 1-Apr. 22.....	364	293	
Calcutta.....	Jan. 29-May 6.....	81	78	Corrected report.
Karachi.....	Nov. 6-Dec. 31.....	5	5	
Do.....	Jan. 1-May 20.....	753	587	
Madras.....	Dec. 11-17.....	1		
Madras Presidency.....	Nov. 13-Dec. 31.....	2,047	1,438	
Do.....	Jan. 1-May 13.....	4,281	2,980	
Rangoon.....	Oct. 1-Dec. 31.....	139	129	
Do.....	Jan. 1-Apr. 29.....	965	837	
Indo-China—				
Saigon.....	Apr. 2-8.....	3	1	Nov. 6-Dec. 24, 1921: Rodent plague, 10. Jan. 8-Apr. 22, 1922: Rodent plague, 13.
Italy:				
Catania.....	Nov. 27.....	1	1	Total, Oct. 16-Nov. 27, 1921: Cases, 8 (of which 1 doubtful); deaths, 5. Jan.-Feb., 1922: 28 plague-infected rats found.
Naples (Province)—				
Torre Annunziata.....	Oct. 22-Dec. 27.....	2		17 miles from city of Naples.
Venice.....	Oct. 27.....	1		
Java.....				Islands of Java and Madoera: Nov. 1-Dec. 31, 1921: Deaths, 1,781. Jan. 1-Mar. 31, 1922: Deaths, 3,356. Mar. 1-31, 1922: Cases, 761.
East Java—				
Semerang—				
Koodoes district.....	Apr. 11.....			Epidemic.
Soerabaya.....	Oct. 30-Dec. 10.....	11	12	
Do.....	Jan. 1-Apr. 22.....	19	19	
Soerakarta—				
Karangnonka district.....	Apr. 11.....			Do.
Kemalang district.....	do.....			Do.

¹ Public Health Reports, Mar. 31, 1922, p. 734.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Madagascar:				
Tamatave.....	Feb. 6-12.....	1	1	
Tananarive.....	Jan. 23-Feb. 19....	26	15	Bubonic, pneumonic, and septicemic, Nov. 23, 1921-Feb. 27, 1922: Cases, 49; deaths, 30.
Mauritius (Island).....				Jan. 23-Feb. 16, 1922: Cases, 13; deaths, 3.
Port Louis.....	Oct. 29-Dec. 30....	241	142	Plague-infected rats, 176; plague-infected cats, 36. (Corrected report.) Dec. 1-30, 1921: Dead rats found, 156; dead cats, 4.
Do.....	Dec. 31-Jan. 22....	16	6	Dead rats found, Dec. 31, 1921-Jan. 11, 1922, 17.
Mesopotamia:				
Bagdad.....	Oct. 1-31.....	1	1	Dec. 1-31, 1921: Cases, 2; deaths, 1.
Do.....	Feb. 1-Mar. 31....	3	2	
Mexico:				
Tampico.....				Dec. 18-31, 1921: Infected rodents found, 5; total, Jan. 1-Dec. 3, 1921, infected rodents, 322; Jan. 1-June 10, 1922, 18 plague-infected rodents.
Vera Cruz.....				1 infected rodent caught Dec. 5, 1921. Apr. 4-28, 1922; 3 infected rodents found.
Peru.....				Nov. 17-Dec. 31, 1921: Cases, 94; deaths, 35. Occurring in Callao, Huacho, Huaras, Lima, Magdalena Vieja, Paiza, Salaverry, and Sechura. Jan. 1-Feb. 28, 1922: Cases, 141; deaths, 62. (Corrected report to Feb. 15, 1922.) Mar. 16-31, 1922: Cases, 28; deaths, 14. Apr. 1-30, 1922: Cases, 73; deaths, 32.
Localities—				
Bambamarca.....	Jan. 1-15.....			Present. Rural.
Barranco.....	Jan. 16-31.....	1		
Callao.....	Jan. 1-Feb. 28....	7	4	Rural. Year, 1921: Deaths, 30.
Casma.....	Feb. 1-28.....	11	3	
Chilclayo.....	Jan. 16-Feb. 28....	19	16	
Chilca.....	Jan. 16-Feb. 15....	11	2	
Cutervo.....	Jan. 1-15.....	1		Rural.
Guadalupe.....	Jan. 1-31.....	7	2	
Huacho.....	Jan. 1-Feb. 15....	3		
Hualgayoc.....	Jan. 16-31.....			Province. Present.
Huaral.....	Jan. 1-15.....	2		
Jayanca.....	do.....			Present.
Lambayeque.....	Jan. 16-Feb. 15....	3	1	
Lima.....	Jan. 1-Feb. 28....	14	4	In district, 20 cases, 6 deaths.
Mollendo.....	Feb. 1-28.....	3		
Pacasmayo.....	do.....	1		
Payta.....	Jan. 1-Feb. 28....	28	21	
Piura.....	Feb. 1-15.....	1		
Salaverry.....	Jan. 16-31.....	1		
San Pedro.....	Jan. 1-15.....	1		
Sullana.....	Jan. 1-Feb. 28....	3	3	
Trujillo.....	Feb. 1-15.....			Present.
Tumbez.....	do.....	4		
Portugal:				
Lisbon.....	Dec. 15.....	1	1	
Do.....	Feb. 1-28.....	6		Pneumonic; occurring in one family.
Portuguese West Africa:				
Angola—				
Loanda.....	Oct. 9-Nov. 5.....		2	
Do.....	Jan. 29-Feb. 4....		2	
Mossamedes.....	Feb. 14.....			Present. In vicinity Mar. 1-22, 1922: Cases, 11. No cases reported in city since Feb. 28, 1922.
Rhodes (Island) (Aegean Sea).....	Oct. 13.....	3	1	
Senegal:				
Dakar.....	Jan. 1-Mar. 31....	4	1	
Siam:				
Bangkok.....	Oct. 23-Dec. 31....	7	6	
Do.....	Jan. 8-Apr. 29....	47	35	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements:				
Singapore.....	Nov. 6-Dec. 31....	3	3	
Do.....	Jan. 15-Apr. 15....	42	22	
Syria:				
Beirut.....	Oct. 9-Nov. 20....	10	4	
Do.....	Mar. 27-Apr. 23....	4		
Turkey:				
Constantinople.....	Jan. 1-7.....	1		Mar. 26-May 13, 1922: Two deaths.
Union of South Africa:				
Orange Free State—				
Boschrand farm.....	Jan. 25.....	3	3	10 miles from Kroonstad. Plague-infected mouse found.
Bothaville.....	Nov. 19.....			Boschrand Siding, about 10 miles south of Kroonstad. Case in European child.
Brakfontein farm.....	Mar. 5-11.....	1		Plague mortality among rodents. Winburg district, vicinity of Ventersburg Road Station.
Geluksfontein farm.....	Feb. 25.....			In native herd boy.
Granville farm.....	Mar. 1-15.....	4	4	12 miles from Bothaville. Plague infection found in rats on adjoining farm, week ended Feb. 4, 1922.
Hoopstad.....	Dec. 4-10.....	1		Plague-infected squirrel found.
Klipfontein farm.....	Feb. 10.....	1	1	Plague-infected mouse. Locality 14 miles north of Bothaville. Plague-infected wild rodents found, February and March, 1922, on farms in vicinity.
Rietfontein farm.....	Feb. 17.....			
Trucart's Berg farm.....	Apr. 30-May 6.....			
On vessels:				
S. S. City of Genoa.....	Mar. 9-15.....	4	2	At Suez and Port Said, Egypt, from Karachi and Bombay, India, for Plymouth, England. 1 fatal case at sea en route to Suez; 1 case on arrival. At Port Said, 2 cases, of which 1 fatal. At Dunkirk, France, Mar. 24, 1922: Several cases on arrival; 1 fatal case in hospital at Dunkirk.
S. S. Elpenor.....	Apr. 16-May 6.....			At Liverpool, England, from oriental ports; 1 plague rat, 1 plague mouse.
S. S. Polycarp.....	Feb. 3.....	1		At Para, Brazil, from Ceara, via Manaus, Maranham, and Para for New York.
S. S. Tango Maru.....	Dec. 31.....	1		At Thursday Island Quarantine, Australia, from Kobe, via Nagasaki, Hongkong, Manila, and Zamboanga.
S. S. Warwickshire.....	Feb. 12.....			At Liverpool, England, from Rangoon. Plague rats, 27; 1 plague mouse.

SMALLPOX.

Algeria:				
Algiers.....	Jan. 1-Mar. 31....	4		
Arabia:				
Aden.....	Dec. 25-31.....		1	
Do.....	Jan. 8-May 6.....		6	
Asia Minor:				
Kovlitz.....	Apr. 23-29.....	27		Interior.
Panderma.....	do.....	2		Do.
Smyrna.....	Jan. 15-May 13....	12		In district.
Bolivia:				
La Paz.....	Aug. 1-Dec. 31....	60	41	
Do.....	Jan. 1-Feb. 28....	32	21	
Brazil:				
Bahia.....	Nov. 6-Dec. 17....	4		
Do.....	Jan. 8-Feb. 4.....	2		
Para.....	May 22-28.....		1	
Pernambuco.....	Apr. 2-8.....	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil—Continued.				
Porto Alegre.....	May 14-20.....		1	
Rio de Janeiro.....	Nov. 13-Dec. 31.....	13	2	
Do.....	Jan. 1-May 13.....	92	29	
Santos.....	Feb. 20-26.....		1	
Sao Paulo.....	Oct. 31-Dec. 25.....	11		
Do.....	Dec. 26-Jan. 8.....	2		
British East Africa:				
Kenya Colony—				
Nairobi.....	Mar. 26-Apr. 20.....	9		
Uganda.....	Aug. 1-Dec. 31.....	33	6	
Do.....	Jan. 1-31.....	36	3	
Canada:				
British Columbia—				
Vancouver.....	Dec. 25-31.....	3		
Do.....	Jan. 29-May 27.....	2		
Victoria.....	Mar. 12-18.....	1		
Manitoba.....				
Winnipeg.....	Nov. 20-Dec. 3.....	2		
Do.....	Apr. 2-8.....	3		
New Brunswick—				
Charlotte County.....				
St. Stephen.....	Dec. 11-17.....	2		Dec. 17, 1921: 31 cases occurring at Andersonville and Blacks Harbor. Dec. 18-24, 1921: Cases, 3. Dec. 25-31, 1921: Cases, 2. Feb. 19-May 13, 1922: Cases, 3.
Madawaska County.....				
Restigouche County.....	Apr. 30-June 3.....	9		Dec. 11-31, 1921: Cases, 3. Feb. 12-25, 1922: Cases, 4. 20 miles from Campbellton.
Charlo.....	Feb. 19-25.....	2		
Westmoreland County.....	Mar. 5-Apr. 1.....	23		
York County.....	Dec. 11-17.....	1		
Do.....	Jan. 29-Feb. 4.....	1		
Ontario.....				
Fort William and Port Arthur.....				
Hamilton.....	Jan. 22-June 10.....	7		
Kingston.....	Jan. 17-Feb. 11.....	5		Jan. 16-20, 1922: Two cases reported.
Niagara Falls.....				
Do.....	Dec. 11-24.....	2		
Do.....	Jan. 15-June 10.....	54		Feb. 19-25, 1922: Cases, 6.
North Bay.....	Feb. 12-May 13.....	4		
Ottawa.....	Dec. 11-24.....	17		
Do.....	Jan. 1-June 10.....	62		
Sault Ste. Marie.....	Jan. 15-21.....	1		
Toronto.....	Dec. 11-24.....	4		
Do.....	Jan. 1-June 10.....	123		
Windsor.....	Jan. 8-Mar. 4.....	3		
Quebec—				
Montreal.....	Dec. 11-24.....	1		
Do.....	May 21-27.....	35	24	
Saskatchewan—				
Regina.....	Jan. 1-Feb. 11.....	4		
Saskatoon.....	Dec. 1-18.....	6		
Do.....	Feb. 5-18.....	3		
Canal Zone:				
Ancon.....				Admitted to hospital by transfer from Panama, Nov. 30, 1921, 1 case. Arrived on sailing vessel from a village on south coast.
Ceylon:				
Colombo.....	Nov. 27-Dec. 3.....	1		Port case.
Do.....	Jan. 29-Apr. 29.....	11		1 port case.
Chile.....				
Concepcion.....	Nov. 23-Dec. 26.....		25	Jan.-Sept., 1921: Cases, 5,500 (approximately); deaths, 2,500 (approximately). Nov. 15-21, 1921: Diffused in southern Provinces; not epidemic.
Do.....	Dec. 27-Mar. 13.....		42	Nov. 15-21, 1921: Present. In vicinity, at Hualqui, cases, 32; deaths, 5. Dec. 4-17, 1921: Present.
Coronel.....				
Curanilahue.....	Nov. 15-Dec. 17.....			Present.
Lota.....	Nov. 15-21.....	4		
Ollague.....	Mar. 12-25.....	1		Oct. 23, 1921-Jan. 31, 1922: Cases, 879; deaths, 333. Reported Mar. 16.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Chile—Continued.				
Osorno.....	Nov. 15-Dec. 24.....	6	.....	From beginning of outbreak to Feb. 15, 1922: Cases, 87.
Talcahuano.....	Jan. 29-Feb. 18.....	5	.....	Jan. 8-28, 1922: Present.
Do.....	Nov. 15-21.....	9	.....	From beginning of outbreak to Feb. 15, 1922: Cases, 122.
Temuco.....	Oct. 23-Dec. 31.....	.....	94	
Valparaiso.....	Jan. 1-Mar. 25.....	.....	39	
China:				
Amoy.....	Nov. 16-Dec. 31.....	.....	7	Nov. 23-29, 1921: Present. Jan. 22-28, 1922: Present. Apr. 30-May 6, 1922: Present.
Do.....	Jan. 1-Apr. 29.....	4	.....
Antung.....	Nov. 28-Dec. 18.....	1	1	
Do.....	Mar. 19-26.....	1	.....
Canton.....	Dec. 1-31.....	.....	.....	Present.
Do.....	Feb. 1-Apr. 30.....	.....	.....	Do.
Changsha.....	Jan. 16-23.....	1	.....	Do.
Chungking.....	Nov. 6-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 1-May 6.....	.....	.....	Manchuria.
Dairen.....	Mar. 13-Apr. 9.....	3	.....	Present.
Foochow.....	Nov. 6-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 1-Apr. 1.....	.....	.....	Do.
Hankow.....	Nov. 13-Dec. 31.....	.....	.....	Do.
Do.....	Jan. 1-May 13.....	4	1	
Harbin.....	Nov. 14-Dec. 11.....	5	.....
Do.....	Dec. 28-May 7.....	9	.....	Manchuria.
Hongkong.....	Dec. 3-31.....	5	.....
Do.....	Jan. 1-May 13.....	148	114	
Mukden.....	Nov. 20-Dec. 31.....	.....	.....	Manchuria. Present.
Do.....	Jan. 15-May 6.....	.....	.....	Do.
Nanking.....	Nov. 20-Dec. 17.....	.....	.....	Present.
Do.....	Jan. 15-Apr. 22.....	.....	.....	Do.
Shanghai.....	Oct. 31-Dec. 31.....	23	194	Cases, foreign; deaths, Chinese and foreign. Population: Native, 790,000; foreign, 24,000. Corrected report.
Do.....	Jan. 2-May 7.....	35	511	Cases, foreign; deaths, native. Jan. 14, 1922; Seriously prevalent.
Tientsin.....	Dec. 11-17.....	2	.....	In Mission Hospital.
Tsingtau.....	Jan. 1-May 7.....	40	15	
Chosen (Korea):				
Fusan.....	Dec. 1-31.....	3	1	
Do.....	Jan. 1-Apr. 30.....	214	59	
Gensan.....	Feb. 1-28.....	1	.....
Seoul.....	Jan. 1-Apr. 30.....	19	8	
Colombia:				
Cartagena.....	Nov. 22-28.....	.....	1	
Santa Marta.....	Feb. 19-25.....	.....	.....	Present.
Cuba:				
Antilla.....	Dec. 12-31.....	3	.....	Dec. 4-31, 1921: Cases, 361. Jan 1-31, 1922: Cases, 257.
Do.....	Jan. 8-Feb. 4.....	13	1	At Preston.
Cienfuegos.....	Jan. 22-May 13.....	15	1	Two cases from outside city limits. Apr. 16-22, 1922: Cases found 6, at Senado, about 25 miles distant.
Matanzas.....	May 1-10.....	1	.....	In Province, Apr. 16-30, 1922.
Nuevitas.....	Apr. 10-16.....	3	.....
Santiago.....	Jan. 1-May 31.....	21	1	
Dominican Republic				
Puerto Plata.....	Jan. 13.....	100	5	In district, widely diffused, with 1,000 estimated cases with 100 deaths.
San Pedro de Macoris.....	Nov. 20-Dec. 31.....	31	1	Estimate of about 500 cases of smallpox in the district of Macoris; of these, 50 within the city limits.
Do.....	Jan. 14-May 20.....	250	9	Including vicinity. In surrounding country, Feb. 15-25: 66 cases. Feb. 25-Apr 1: About 60 cases; Apr. 30, 75 cases; May 7-13, 57 cases (estimated) present.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Dominican Republic—Contd. Santo Domingo.....	Nov. 15-Dec. 5.....			In district, 401 cases, estimated. Dec. 17-24, 1921: Present in vicinity. Jan 9-16, 1922: In surrounding country, 1,745 cases (estimated). Mar. 19-Apr. 1, 1922: About 20 cases, with 1 death, in surrounding country.
Do.....	May 14-20.....	72		Apr. 2-15, 1922: Cases, 25; deaths, 8. Apr. 23-29: Cases, 29; deaths, 4. Apr. 30-May 6, 1922: Present, with 4 reported deaths. May 14-June 3, 1922: Cases, 78; deaths, 6.
Ecuador:				
Guayaquil.....	Nov. 16-Dec. 3.....	7		And vicinity.
Do.....	Jan. 1-Apr. 15.....	5		
Egypt:				
Alexandria.....	Nov. 26-Dec. 2.....	1	1	
Cairo.....	do.....	2		
Port Said.....	Dec. 20-26.....	1		Dec. 16-23, 1921; 1 case.
Do.....	Jan. 22-May 20.....	3		
Finland.....				Nov. 16-30, 1921; 1 case.
Do.....				Feb. 4-15, 1922: Cases 19. Mar. 1-Apr. 30, 1922: Cases, 38.
Fiume.....				Dec. 27, 1921-Jan. 2, 1922: Cases, 2.
France:				
Bordeaux.....	Mar. 31-Apr. 6.....		1	
Great Britain:				
Liverpool.....	May 14-20.....	2		One case from vessel and one contact.
Manchester.....	Jan. 1-7.....	4		
Nottingham.....	Dec. 4-31.....	18		
Do.....	Jan. 8-May 20.....	19		
Sheffield.....	Apr. 23-29.....	3		
Swansea.....	Jan. 17-23.....	2		Imported on vessel from Persian Gulf.
Greece:				
Saloniki.....	Mar. 19-Apr. 9.....	14	9	
Haiti:				
Cape Haitien.....	Dec. 11-24.....	8		Jan. 22-May 6, 1922: Present.
Do.....	Jan. 1-Feb. 18.....	21	1	
Port au Prince.....	Dec. 11-31.....			Present.
Do.....	Jan. 15-21.....	2		
India:				
Bombay.....	Oct. 23-Dec. 31.....	3	2	Oct. 2-8, 1921: Deaths, 28. Oct. 23-Nov. 19, 1921: Deaths, 266.
Do.....	Jan. 1-Apr. 22.....	53	20	Nov. 27-Dec. 31, 1921: Deaths, 533. Jan. 1-28, 1922: Deaths, 700. Mar. 29-Feb. 25, 1922: Deaths, 1,061.
Calcutta.....	Nov. 13-Dec. 31.....	37	28	
Do.....	Jan. 1-May 6.....	458	321	
Karachi.....	Nov. 11-Dec. 31.....	28	9	
Do.....	Jan. 1-May 20.....	326	187	
Madras.....	Nov. 13-Dec. 31.....	183	59	
Do.....	Jan. 1-May 13.....	1,756	649	
Rangoon.....	Oct. 1-Dec. 31.....	6		
Do.....	Jan. 15-May 6.....	138	13	
Indo-China:				
Saigon.....	Dec. 18-24.....	1	1	City and district.
Do.....	Jan. 8-Apr. 22.....	28	16	Do.
Italy:				
Catania.....	Feb. 20-26.....	1		In Province.
Genoa.....	Nov. 10-20.....	1		
Messina—				
Messina.....	Nov. 28-Dec. 4.....	1		
Pettineo.....	Nov. 14-Dec. 4.....	2		
Venice.....	Jan. 30-Feb. 5.....	2		
Japan:				
Kobe.....	Jan. 23-Apr. 30.....	2	2	
Nagasaki.....	Mar. 13-Apr. 30.....	2		
Taiwan Island.....	Dec. 1-31.....	2	1	
Do.....	Feb. 14-Mar. 10.....	2	1	
Yokohama.....	Jan. 9-Apr. 23.....	4		Corrected report.
Java:				
East Java—				
Soerabaya.....	Jan. 1-7.....	4		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java—Continued.				
West Java—				
Bandoeng.....	Nov. 18-Dec. 8.....	2	.....
Batavia.....	Nov. 18-Dec. 22.....	11	9	City and Province. In Province: Cases, 23; deaths, 4; 13 cases, with 3 deaths, not locally stated. Feb. 3-Mar. 30, 1922: Cases, 21; deaths, 5.
Do.....	Dec. 30-Apr. 27.....	13	4	
Buitenzorg.....	Nov. 25-Dec. 8.....	7	1	
Krawang.....	Nov. 18-24.....	1	.....
Lobak.....	Nov. 18-Dec. 8.....	7	4	
Pandeglang.....	Nov. 25-Dec. 1.....	.....	1	
Tangerang.....	Nov. 18-Dec. 8.....	5	1	
Liberia:				
Grand Bassa County.....	Nov. 30.....	.....	.....	Present at Lower Buchanan.
Mesopotamia:				
Bagdad.....	Oct. 1-Dec. 31.....	195	95	Epidemic, with high mortality, November, 1921.
Do.....	Feb. 1-28.....	6	4	
Mexico:				
Chihuahua.....	Dec. 5-11.....	.....	1	
Do.....	Jan. 23-Feb. 19.....	.....	2	
Guadalajara.....	Nov. 1-Dec. 31.....	6	.....
Do.....	Jan. 1-Apr. 30.....	41	7	
Manzanillo.....	Apr. 25-May 29.....	4	2	
Mexicali.....	May 1-31.....	100	15	
Mexico City.....	Nov. 20-Dec. 31.....	64	.....	Including municipalities in Fed- eral District.
Do.....	Jan. 1-Apr. 22.....	312	.....
Monterey.....	Apr. 12.....	.....	2	Epidemic. Apr. 23, estimated about 16 deaths daily. Apr. 25-May 1, 1922: 9 deaths, in children. May 10-16, 2 deaths. From San Salvador, Zacatocas, 1; from Tampico, 1.
Saltijo.....	Jan. 29-May 6.....	.....	9	
San Luis Potosi.....	Dec. 18-24.....	.....	2	
Do.....	Jan. 8-June 10.....	.....	21	
Torreón.....	Dec. 1-31.....	.....	134	
Do.....	Jan. 1-Feb. 23.....	.....	82	
Newfoundland:				
St. John.....	Feb. 4-10.....	1	.....
Nicaragua:				
Managua.....	Mar. 5.....	.....	.....	Present.
Palestine:				
Jerusalem.....	Jan. 10-Feb. 20.....	27	.....
Panama:				
Bocas del Toro Province—				
Susuba.....	Jan. 18-Feb. 8.....	11	.....	Village 24 miles from Almiranta. Present.
Chiriqui Province.....	Dec. 22.....	.....	.....	Present with center of prevalence at Boquete Bajo. At Boquete Bajo, Jan. 22-Mar. 23, 1922, 59 admissions to lazaretto. On Mar. 20, 1922, 16 cases of small- pox, confluent type. On Dec. 21, 1921, 1 additional case from country district of Saba- nas admitted to hospital. Total admissions, Jan. 1-Dec. 21, 1921, 207.
Do.....	Jan. 26.....	.....	.....
Panama.....	Dec. 14.....	1	.....	1 case imported May 11 from Chiriqui Province.
Do.....	Apr. 26-May 11.....	2	.....	May 22-Nov. 22, 1921: Deaths, 23.
Persia:				
Teheran.....				
Peru:				
Lima.....	Nov. 1-Dec. 31.....	.....	3	
Poland:				
Silesia.....	May 2.....	.....	.....	Aug. 14-Dec. 31, 1921: Cases, 578; deaths, 146. Jan. 1-Mar. 25, 1922: Cases, 677, deaths, 182. Exclusive of Brest-Litovsk, Minsk, and Wilno districts. Epidemic.
Portugal:				
Lisbon.....	Nov. 13-Dec. 31.....	48	12	
Do.....	Jan. 1-May 20.....	232	10	1 death in January, 1 in Febru- ary, 7 deaths in March.
Portuguese East Africa:				
Lourenço Marques.....	Oct. 1-Nov. 5.....	2	4	
Portuguese West Africa:				
Angola—				
Loanda.....	Oct. 9-Dec. 31.....	.....	7	
Do.....	Jan. 1-Mar. 25.....	.....	6	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Rumania:				
Bucharest.....	Nov. 1-30.....		33	
Cahul.....	Jan. 1-31.....	1		District.
Chisinau.....	Dec. 1-31.....	33		Do.
Do.....	Feb. 1-23.....	17		Do.
Russia:				
Esthonia.....	Oct. 1-Dec. 31.....	38		
Do.....	Feb. 1-Mar. 31.....	7		
Lettonia.....	do.....	75		Name of country officially
Do.....	Jan. 1-Mar. 31.....	54		changed from Latvia to Let-
				tonia.
Senegal:				
Dakar.....	do.....	5	3	
Serbia:				
Belgrade.....	Oct. 2-Nov. 26.....	16	4	
Siam:				
Bangkok.....	Oct. 23-Nov. 5.....	1		
Do.....	Mar. 19-25.....	1		
Siberia:				
Vladivostok.....	Feb. 22-Mar. 31.....	3	1	
Spain:				
Barcelona.....	Jan. 8-14.....		1	
Corunna.....	Apr. 2-May 6.....		2	
Huelva.....	Oct. 1-Dec. 31.....		3	
Do.....	Jan. 1-Mar. 31.....	1	3	
Malaga.....	Nov. 1-Dec. 31.....		60	
Do.....	Jan. 1-31.....		8	
Seville.....	Nov. 16-Dec. 31.....		7	
Do.....	Jan. 8-May 20.....		132	
Valencia.....	Jan. 27-May 13.....	6	1	Mar. 9-15, 1922: One case.
Straits Settlements:				
Singapore.....	Nov. 6-Dec. 24.....	49	13	
Do.....	Jan. 1-Apr. 22.....	226	47	
Switzerland:				
Glarus, Canton.....	Dec. 10.....			Epidemic.
Lucerne.....	Feb. 1-28.....	12		
St. Gall.....	Feb. 12-18.....	1		
Zurich.....	Dec. 10.....	2		In vicinity.
Do.....	Mar. 12-Apr. 8.....	6		Apr. 1-30: Cases, 38.
Syria:				
Adana.....	Dec. 18-24.....			Present.
Do.....	Jan. 1-14.....			Do.
Aleppo.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-May 20.....			Do.
Alexandretta.....	do.....			Do.
Beirut.....	Oct. 9-Nov. 13.....	5	2	
Do.....	Jan. 8-Apr. 16.....	25	11	Dec. 29, 1921-Jan. 4, 1922: Cases, 14; deaths, 2.
Cilicia.....	Jan. 8-Feb. 4.....			Present.
Diarbekir.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Feb. 4.....			Do.
Mersina.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-7.....			Do.
Urfa.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Feb. 4.....			Do.
Tunis:				
Tunis.....	Nov. 26-Dec. 23.....	17	15	
Do.....	Jan. 1-Apr. 8.....	4	6	
Turkey:				
Constantinople.....	Nov. 27-Dec. 24.....	20	4	
Do.....	Jan. 15-May 20.....	158	32	
Union of South Africa:				
Cape Province.....	Nov. 5-Dec. 31.....			Nov. 1-Dec. 31, 1921: Cases, 342; deaths, 6 (colored); white, 10 cases. Jan. 1-Mar. 31, 1922: Cases, 95; deaths, 7.
Do.....	Jan. 8-Apr. 15.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 42; 1 death (colored).
Natal.....	do.....			Outbreaks.
Durban.....	Apr. 2-8.....	1		Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 209; deaths, 5 (colored).
Orange Free State.....	Oct. 23-Dec. 24.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 8 (colored).
Do.....	Feb. 5-25.....			Outbreaks.
Southern Rhodesia.....	Dec. 29-May 10.....	375		Natives.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa—Contd.				
Transvaal.....	Oct. 23-Dec. 31.....			Outbreaks.
Do.....	Jan. 1-Apr. 8.....			Outbreaks. Dec., 1921: Cases, 15; Nov. 1-Dec. 31, 1921: Cases, 22 (colored). Among white population, 8 cases, State not designated.
Johannesburg District..	Dec. 1-31.....	2		Outbreaks.
Do.....	Jan. 1-Apr. 8.....			
Venezuela:				
Ciudad Bolivar.....	Mar. 22.....	3		
Virgin Islands:				
St. Thomas.....	June 6.....	1		
Yugoslavia.....				July 3-30, 1921: Cases, 37.
Bosnia Herzegovina.....	July 3-9.....	2		
Croatia Slavonia.....	do.....	1		
Dalmatia.....	do.....	1		
Serbia.....	do.....	3		
Belgrade.....	Dec. 11-17.....	4		
Do.....	Jan. 1-Feb. 18.....	6		
Slovenia.....	July 3-9.....	1		
Voivodina.....	do.....	3		
On vessels:				
S. S. Bonna.....	Apr. 16.....	1		At Sydney from Shanghai and Moji. Case developed en route to Guam. Vessel released at Sydney, Apr. 19.
S. S. Comeric.....	Apr. 13.....	1		At Sydney from Shanghai. Case occurred in Malay sailor. Vessel released at Sydney, Apr. 19.
S. S. Empire State.....	Apr. 7.....	1		At Honolulu, Hawaii, Mar. 31. In Chinese woman, embarked at Hongkong, Mar. 15, unvaccinated; arrived Shanghai Mar. 19, states did not go ashore; at Kobe Mar. 22; left Yokohama Mar. 24. Case was passed on inspection; developed Apr. 5, 1922.
S. S. Victoria.....	Jan. 16.....	1	1	At Thursday Island Quarantine, Australia. Vessel left Hongkong Jan. 3; case isolated Jan. 10. Vessel left for Townsville, Sydney, and Melbourne. Released at Melbourne Feb. 4, 1922.
S. S. West O'Rowa.....	Jan. 5-8.....	3	1	At Kobe, Japan, from Shanghai, China.
S. S. —.....	Jan. 17-23.....	2		At Swansea, Wales, from Persian Gulf.
S. S. —.....	May 14-20.....	2		At Liverpool, England; from vessel.

TYPHUS FEVER.

Algeria:				
Algiers.....	Nov. 1-Dec. 31.....	3		
Do.....	Jan. 11-May 31.....	25	1	
Oran.....	Dec. 21-31.....	1		
Do.....	Jan 1-Apr. 20.....	24	14	
Argentina:				
Rosario.....	Mar. 1-31.....		1	
Asia Minor:				
Brousa.....	Jan. 15-21.....	1		
Smyrna.....	Apr. 15-21.....	1		
Austria:				
Vienna.....	Dec. 4-31.....	10		
Do.....	Jan. 1-Apr. 15.....	10	1	
Bolivia:				
La Paz.....	Aug. 1-Dec. 31.....	121	98	
Do.....	Jan. 1-31.....	15	12	
Brazil:				
Sao Paulo.....	Feb. 6-12.....	12	2	
Bulgaria:				
Sofia.....	Dec. 18-24.....	1		
Do.....	Feb. 12-May 20.....	5		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Chile:				
Concepcion.....	Nov. 22-Dec. 26.....		3	
Do.....	Jan. 3-30.....		3	
Talcahuano.....	Jan. 29-Feb. 18.....	3		
Valparaiso.....	Oct. 23-Nov. 26.....		6	
Do.....	Jan. 1-7.....		1	
China:				
Antung.....	Dec. 26-Jan. 1.....	1		
Do.....	Feb. 6-Apr. 9.....		9	
Harbin.....	Nov. 7-Dec. 25.....	12		
Do.....	Dec. 26-Apr. 30.....		50	Jan. 23, 1922: Reported extending from Soviet Russia along railway line to maritime Provinces.
Czechoslovakia:				
Prague.....	Jan. 22-May 13.....	5		
Danzig (free city).....	Feb. 23.....	1		In district, at Zoppot. In merchant from Warsaw.
Egypt:				
Alexandria.....	Nov. 19-Dec. 31.....	3	1	
Do.....	Jan. 15-May 20.....	25	6	
Cairo.....	Oct. 1-Dec. 31.....	16	14	Corrected report.
Do.....	Jan. 1-Mar. 18.....	26	13	
Port Said.....	Jan. 22-Apr. 8.....	3		
Finland:				
Hel싱fors.....	Jan. 1-31.....	1		In courier from Moscow.
Germany:				
Berlin.....	Apr. 8-22.....		3	Mar. 5-11: One case.
Breslau.....	Dec. 25-31.....	2	1	
Do.....	Jan. 1-Apr. 30.....	56	9	Including district.
Frankfort-on-Oder.....	Feb. 16-Mar. 18.....	31		Twenty-six in persons returning from Russia; 5 in quarantine camp, Mar. 12-18, of which, 2 in Volga Germans.
Hamburg.....	Dec. 11-17.....	4		Of these, 3 in refugees.
Königsberg.....	Apr. 16-22.....		1	Repatriated.
Govt. District— Gumbinnen.....	Feb. 26-Mar. 25.....	9		
Stettin.....	Feb. 12-Mar. 11.....	10	2	
Great Britain:				
Birkenhead.....	Apr. 6.....	13	3	Vicinity of Liverpool.
Glasgow.....	Dec. 25-31.....	1		
London.....	Apr. 29.....	1		Stated to have probably been contracted in Warsaw.
Southampton.....	June 21.....	1	1	In Polish transmigrant, at embarkation detention camp.
Greece:				
Patras.....	Apr. 3-9.....			One death, recurrent typhus.
Saloniki.....	Jan. 23-Apr. 30.....	122	30	Among Russian refugees, 16 cases, 5 deaths.
Hungary:				
Budapest.....	May 7-13.....		1	
Mesopotamia:				
Bagdad.....	Oct. 1-Dec. 31.....	3	9	
Do.....	Feb. 1-Mar. 31.....	1	3	
Mexico:				
Mexico City.....	Nov. 20-Dec. 31.....	242		Including municipalities in Federal District.
Do.....	Jan. 1-Apr. 22.....	330		Do.
San Luis Potosi.....	Dec. 18-24.....		1	Dec. 25-31, 1921: Present.
Do.....	Jan. 8-Feb. 25.....			Present; 1 death.
Palestine:				
Jerusalem.....	Dec. 27-May 29.....	19		
Poland:				
Aug. 14-Nov. 5, 1921: Cases, 2,399; deaths, 173. Nov. 6-Dec. 3, 1921: Cases, 1,512; deaths, 105. Nov. 20-Dec. 10, 1921: Cases, 1,162; deaths, 89. Dec. 4-31, 1921: Cases, 3,600; deaths, 313. Jan. 1-23, 1922: Cases, 6,452; deaths, 643; recurrent typhus—cases, 6,268; deaths, 330. Jan. 29-Mar. 25, 1922: Cases, 13,825; deaths, 1,027. Recurrent typhus: Cases, 15,944; deaths, 587. All statistics are exclusive of Brest-Litovsk, Minsk, and Wilno districts.				
Jan. 1-7, 1922: Cases, 61.				
District—				
Bialystok.....	Nov. 20-Dec. 10.....	116	3	
Do.....	Jan. 1-7.....	253		
Galicia—				
Lemberg.....	Jan. 3.....	229		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Poland—Continued.				
District—Continued.				
Kielce.....	Nov. 20-Dec. 10...	31	8	
Do.....	Jan. 1-7.....	28		
Krakow.....	Nov. 20-Dec. 10...	45	6	
Do.....	Jan. 1-7.....	53		
Lodz.....	Nov. 20-Dec. 10...	67		
Do.....	Jan. 1-7.....	41		
Lublin.....	Nov. 20-Dec. 10...	59		
Do.....	Jan. 1-7.....	147		
Lwow.....	Nov. 20-Dec. 10...	121	16	
Nowogrod.....	do.....	249	15	
Polesia.....	do.....	83	5	
Do.....	Jan. 1-7.....	450		
Posan.....	do.....	1		
Stanislawow.....	Nov. 20-Dec. 10...	88	8	
Do.....	Jan. 1-7.....	54		
Tarnopol.....	Nov. 20-Dec. 10...	86	17	
Do.....	Jan. 1-7.....	28		
Volhynia.....	Nov. 20-Dec. 10...	89	4	
Do.....	Jan. 1-7.....	107		
Warsaw.....	Nov. 20-Dec. 10...	81	2	
Do.....	Jan. 1-7.....	32		
Warsaw City.....	Nov. 20-Dec. 10...	47	5	
Do.....	Jan. 1-7.....	67		Feb. 26-Apr. 22, 1922: Cases, 255. Occurring in permanent and transient residents.
Portugal:				
Oporto.....	Jan. 8-June 3.....	49	4	
Rumania:				
Bucharest.....	Nov. 1-30.....	3		
Cahul.....	Jan. 1-Feb. 28.....	7		District.
Chisinau.....	Nov. 1-Dec. 31.....	28		District. Dec. 1-31, 1921: Recurrent typhus; cases, 19.
Do.....	Feb. 1-28.....	10		
Galatz.....	Apr. 1-30.....	1		
Russia.				
Esthonia.....	Oct. 1-Dec. 31.....	53		Nov. 28-Dec. 10, 1921: In Soviet Russia, cases, 7,661.
Do.....	Jan. 1-Mar. 31.....	97		Recurrent typhus, 51 cases.
Lettonia.....	Oct. 1-Dec. 31.....	341		Corrected report Oct. 1-Nov. 30, 1921: Cases, 127.
Do.....	Jan. 1-Mar. 31.....	688		Recurrent typhus: Cases, 43.
Libau.....	Jan. 15-Feb. 1.....	4		
Lithuania.....	Jan. 1-31.....	814	73	Recurrent typhus: Cases, 357; deaths, 12. Typhus: Feb. 19, 1922, 400 cases, vicinity of Kovno, with mortality of 7 per cent.
Perm.....	Nov. 23-Dec. 10.....	1,408		Oct. 1-31, 1921: Cases, 839. Nov. 1-30, 1921: Cases, 2,389.
Saratov District— Markstadt.....				
				Sept. 1-Dec. 31, 1921: Cases, 1,987; mortality, about 10 per cent; hospital cases.
Serbia:				
Belgrade.....	Oct. 2-Nov. 26.....	3	2	
Siberia.				
Chita.....	Dec. 26.....			Jan. 23, 1922: Present in western districts.
Vladivostok.....	Dec. 25-31.....	5	1	Epidemic.
Do.....	Mar. 25-31.....	2	1	
Spain:				
Madrid.....	Dec. 1-31.....		1	
Do.....	Jan. 1-Apr. 30.....		24	Corrected report.
Seville.....	May 8-14.....		1	
Syria.....				
Aleppo.....	Mar. 19.....			Apr. 16-22, 1922: Reported present in the interior cities.
Diarbekir.....	Mar. 5-Apr. 15.....			Apr. 23-May 13, 1922: Present in interior localities.
Mardin.....	do.....			Present.
Do.....				Do.
Tunis:				
Tunis.....	Feb. 5-May 27.....	5	4	
Turkey:				
Constantinople.....	Nov. 20-Dec. 31.....	19		
Do.....	Jan. 1-May 20.....	147	2	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa.....				Nov. 1—Dec. 31, 1921: Cases, 1,368; deaths, 205 (colored). White, 20 cases; deaths, 4. Jan. 1—Mar. 31, 1922: Cases, 1,328; deaths, 169; of which 15 cases and 5 deaths in white population.
Cape Province.....				Oct. 23—Dec. 24, 1921: Outbreaks. Nov. 1—Dec. 31, 1921: Cases, 1,053; deaths, 158 (colored). Among white population, 19 cases, 3 deaths.
Do.....				Jan. 1—May 6, 1922: Outbreaks. Jan. 1—Feb. 28, 1922: Cases, 688; deaths, 90 (colored); cases, 11, deaths, 4 among white population.
East London.....	Oct. 30—Dec. 24.....	3		One death of European at Jenseville, Dec. 6, 1921.
Do.....	Jan. 29—Feb. 11.....	2		Natives.
Natal.....	Nov. 5—Dec. 17.....			Outbreaks. Stated to be prevalent only in Newcastle district. Nov. 1—Dec. 31, 1921: Cases, 135; deaths, 25 (colored). Jan. 1—Feb. 28, 1922: Cases, 41; deaths, 10 (colored). Among white population 3 cases, 1 death.
Durban.....	Jan. 15—21.....	1		Imported.
Orange Free State.....	Nov. 13—Dec. 31.....			Outbreaks. Nov. 1—Dec. 31, 1921: Cases, 158; deaths 21 (colored).
Do.....	Jan. 1—Apr. 1.....			Outbreaks. Jan. 1—Feb. 28, 1922: Cases, 176; deaths, 25.
Transvaal.....	Jan. 8—May 6.....			Outbreaks. Nov. 1—Dec. 31, 1921: Cases, 35; deaths, 4 (colored). White, 1 case, 1 death. Jan. 1—Feb. 28, 1922: Cases, 40; deaths 3 (colored).
Johannesburg district.....	Jan. 12—Mar. 31.....	37	15	
Venezuela:				
Maracaibo.....	Dec. 20—26.....		1	
Yugoslavia.....				July 3—30, 1921: Cases, 13.
Bosnia-Herzegovina.....	July 3—9.....	1		
Crestia Slavonia—				
Zagreb.....	Jan. 1—Mar. 25.....	4		
Montenegro.....	July 3—9.....	3		

YELLOW FEVER.

Brazil:				
Bahia.....	Apr. 16—22.....	1	1	
Pernambuco.....	Feb. 19—Mar. 18.....	3	2	
Mexico.....				Year 1921: Cases, 115; deaths, 53.
Colima (State).....				Year 1921: Cases, 7; deaths, 4.
Colima.....	Oct. 27.....	4	3	
Manzanillo.....	Aug. 21.....	3	1	
Jalisco (State).....				Year 1921: Cases, 13; deaths, 7.
Guadalajara.....	Nov. 1—30.....	1	1	Imported.
Puerta Vallarta (Las Penas). Do.....	Oct. 5—Dec. 17.....	13	5	
Tonila.....	Jan. 22—31.....	3	1	
Tonila.....	Aug. 31.....	1	1	
Oaxaca (State)—				
Rincon Antonio.....	Jan. 10.....	1	1	
Quintana Roo (Territory)—				
Payo Obispo.....	Aug. 8.....	1	1	
Sinaloa (State).....				Year 1921: Cases, 18; deaths, 9.
Culiacan.....	Sept. 17.....	4	1	
Guamuchil.....	Oct. 10.....	1	1	
Mazatlan.....	Aug. 21.....	1	1	Imported.
Palmar de los Leales.....	Sept. 30.....	12	7	
Tamanlipas (State).....				Year 1921: Cases, 1; deaths, 1.
Tampico.....	Jan. 11.....	1	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to June 30, 1922—Continued.

YELLOW FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico—Continued.				
Vera Cruz (State).....	.....	.....	.....	Year 1921: Cases, 75; deaths, 31. Oil camp.
Alamo.....	June 21.....	4	1	
Alvarado.....	July 3.....	1	1	
Barra de Penn.....	July 18.....	1	1	
Cordoba.....	Sept. 22.....	5	3	
Cosamaloapam.....	July 18.....	14	6	
Nogales.....	Oct. 28.....	1	1	
Orizaba.....	do.....	1	.....
Papantla.....	Jan. 14.....	6	3	
Providencia.....	Oct. 28.....	3	.....
Purga.....	Feb. 7.....	1	1	
Rancho de Santa Rosa.....	Oct. 8.....	2	.....
Rancho "El Jaguey".....	Sept. 14.....	2	2	
San Cristobal.....	Mar. 24.....	1	.....
San Pablo (Papantla).....	Sept. 12.....	1	.....
San Ildefonso.....	Oct. 17.....	2	.....
Tierra Blanca.....	Sept. 24-Nov. 12.....	4	3	
Tlacoalpan.....	Sept. 14.....	1	1	
Tuxpam.....	Jan. 3.....	8	2	
Vera Cruz.....	Jan. 15.....	18	7	Two of these cases imported. Dec. 20-26, 1921: Cases, 1; deaths, 1, imported. March, 1922: One case on plantation 105 miles from port of Vera Cruz.